



State of Wisconsin \ Department of Commerce

RULES IN FINAL DRAFT FORM

Rule Number: Comm 61 to 65

Relating to: Construction of Public Buildings and Places of
Employment

Clearinghouse Rule No.: 04-016

ANALYSIS OF PROPOSED RULES

Statutory Authority and Statutes Interpreted

Statutory Authority: ss. 101.02 (1) and (15), 101.12 (1), 101.128 (2), and 101.973 (1), Stats.

Statutes Interpreted: ss. 101.02 (1) and (15), 101.12 (1), 101.125, 101.128 (2), and 101.973 (1), Stats.

General Summary

Under the statutes cited, the Department protects public health, safety, and welfare by promulgating comprehensive construction requirements for public buildings and places of employment. These requirements are primarily contained in chapters Comm 61 to 65, which is the Wisconsin Commercial Building Code. The current version of this Code became effective on July 1, 2002.

Subsequent to adoption of the 2002 version of this Code, numerous improvements have occurred in several of the nationally recognized standards that are incorporated by reference into this Code, particularly the building code requirements developed by the International Code Council®.

These proposed rules would update chapters Comm 61 to 65 to reflect many of these improvements, codify several interim approvals the Department has issued for alternate design methods and standards, and accommodate various other clarifications that are expected to somewhat simplify compliance with this comprehensive code.

The proposed rules would also expand when fire protection systems must receive plan approval from the Department or an agent, to include systems for residential occupancies containing more than two dwelling units, where the occupants are primarily permanent in nature.

These rule changes have been developed with input from the Department's Commercial Building Code Council and the Multifamily Dwelling Code Council.

Detailed Summary

The following list summarizes the most substantive changes that are included in these proposed rules.

SECTION 1. Comm 61.02 (5) – Clarifies that the scope of the code includes existing buildings which are converted to community-based residential facilities for 9 to 20 residents, because these facilities are places of employment even though they are specifically excluded from the statutory definition of a public building.

SECTION 5. Comm 61.03 (10) (a) 4. – Addresses a change of occupancy or use that does not include any construction.

Comm 61.03 (10) (a) Note – Provides separate, further description of the application of Comm 61 to 65 to changes of use for buildings that predate Comm 61 to 65.

SECTION 6. Comm 61.03 (10) (b) – Clarifies that a new use which is equal in hazard to an existing use does not trigger compliance with new code requirements, and provides guidance in how to determine the relative hazard of the new use.

SECTION 9. Comm 61.03 (13) (a) 1. and 6. – Incorporates the requirements from the *International Fire Code*® for indoor storage and display of black powder, smokeless propellants, and small arms ammunition.

Comm 61.03 Note – Expands the list of other possibly applicable rules to include Comm 90 and 91, and clarifies that the Department’s Safety and Buildings Division administers all of the referenced codes except Comm 10, which is administered by the Environmental and Regulatory Services Division.

SECTION 12. Comm 61.04 (3) – Resolves the differences between the statutory definition of “dwelling unit” and the corresponding definition in Section 202 of the *International Building Code*® (which is repeated in Section 202 of the *International Energy Conservation Code*® and Section 202 of the *International Mechanical Code*®).

SECTION 14. Comm 61.115 (1) (intro.) – Changes the threshold for submitting a soil erosion Notice of Intent from 5 acres to 1 acre, to be consistent with recent changes in corresponding federal requirements.

SECTION 16. Comm 61.30 (4) – Clarifies where plan review is not required for minor alterations.

SECTION 17. Comm Table 61.30-3 – Changes the sprinkler plan review thresholds to include all R-2 occupancies that have sprinkler systems.

SECTION 19. Comm 61.31 (2) (b) 2. b. – Codifies the Department’s current practice of accepting just one full set of building plans if the set is accompanied with at least 3 additional, acceptable cover sheets, which allows returning only the additional cover sheets.

SECTION 21. Comm 61 Subchapter IV is repealed, to reflect current local practices of not utilizing a building permit developed by the Department specifically for multifamily dwellings.

SECTION 28. Comm 62.0100 Note (3) – Because of numerous references in the IBC to one- and two-family dwellings (and to IBC Section 101.2, which has been deleted in Wisconsin) an informational Note is created to explain that the scope of the Wisconsin Commercial Building Code differs from the scope of the IBC. In particular, three or more attached townhouses, as are referenced in an exception under IBC 101.2, are noted as being within the scope listed in s.

Comm 61.02. Detached one- and two-family dwellings, as are likewise referenced in an exception under IBC 101.2 and elsewhere in the IBC, are noted as being regulated in Wisconsin by chs. Comm 20 to 25. Various subsequent SECTIONS delete the IBC references to detached one- and two-family dwellings.

SECTION 29. IBC 115 is deleted, due to its overlap with the authority and requirements for local governments, in section 66.0413, Stats., for razing buildings.

SECTION 30. Comm 62.0202 (1) (a) – Changes air “barrier” to air “retarder” which is more accurate, and is consistent with vapor “retarder,” as is used throughout the IBC.

SECTION 31n. Comm 62.0202 (1) (b) – Incorporates the definition of “high-piled combustible storage” from the *International Fire Code*[®].

SECTION 34. Comm 62.0302 (1) and (2) and IBC Table 302.1.1 – Codifies the Department’s interpretation that IBC 302.1.1 only requires an incidental-use enclosure if the building has an object or a provided room that is listed in the associated table, and incorporates the corresponding text and Table in the 2003 IBC, to provide more options and clarity for incidental-use areas.

Comm 62.0302 (3) – Replaces the IBC Table 302.3.3 hourly separations between identical occupancies, with a dash, to be consistent with the 2003 IBC version of this Table.

Comm 62.0303 – Incorporates the 2003 IBC clarifications of which occupancies are considered assembly occupancies, including the clarification that a nonaccessory assembly use serving fewer than 50 persons is a B occupancy.

Comm 62.0305 – Specifies that an E occupancy is as described in the 2003 IBC.

SECTION 36. Comm 62.0310 (1) – Incorporates the 2003 IBC clarification that the R-2 occupancy includes buildings with multiple sleeping areas sharing a central facility for cooking and eating, such as boarding houses, convents, or dormitories.

SECTION 37. Comm 62.0400 (4) – Changes the defining, lower threshold of 3 adults for a Community Based Residential Facility to 5 adults, to be consistent with section 50.01 (1g), Stats.

SECTION 38. Comm 62.0404 – In the definition of an atrium, “connecting” is substituted for “through,” and “stories” is substituted for “floor levels,” as have been substituted in the 2003 IBC, to eliminate ambiguity in the number stories that can be connected before an atrium is created.

SECTION 39. Comm 62.0406 (1) and (2) (b) – The requirements for locating heating equipment in parking garages are revised to match the 2003 IBC requirements for repair garages, and those 2003 requirements are also incorporated for repair garages, under IBC 406.6.5.

Comm 62.0406 (2) (a) – Clarifies that mixed uses can be allowed in the same building as a repair garage, subject to the provisions of IBC 302.3.

SECTION 40. Comm 62.0412 – Expands the text for unit heaters in aircraft hangars, to allow all heating equipment to be similarly suspended above the aircraft, rather than located in a separated room.

SECTION 42. Comm 62.0603 (1) – Replaces footnote c.3 under Table 601 in the 2000 IBC, with the 2003 IBC footnote, which expands use of fire-retardant-treated wood in Type I and II construction, to buildings over 2 stories.

SECTION 43. Comm 62.0706 (1) and Table 62.0706 – New sections and a Table from the 2003 IBC are incorporated to clarify fire separations between mixed occupancies, and to clarify the fire rating for barriers that are used to divide a single occupancy into different fire areas.

SECTION 43m. Comm 62.0711 – Incorporates the 2003 IBC requirements for electrical outlet boxes on opposite sides of a fire wall, fire barrier, smoke barrier wall, or fire partition.

SECTION 45. Comm 62.0715 (1), (3), and (4) – For duct and air transfer openings that are permitted to penetrate shaft enclosures, the smoke damper exemptions from Section 716.5.3.1 in the 2003 and 2006 IBC are incorporated, along with the revised text there for fire damper exemptions in those penetrations. And, the smoke damper exemptions are expanded to also apply to ducts that are for the exhaust portion of systems covered by NFPA 45 (i.e., laboratory fume hoods). In sub. (3), text from the 2003 IBC is incorporated to no longer require fire dampers at through penetrations of exhaust ducts within residential occupancies, under certain circumstances. In sub. (4), text from the 2003 and 2006 IBC is incorporated to clarify the requirements for duct systems that penetrate fire-resistive-rated ceiling membranes.

SECTION 46. Comm 62.0901 (1) Note – The Note is revised to clarify that Comm 14 has requirements relating to shutting down or impairing sprinkler systems; and Comm 61 has requirements relating to availability of sprinkler documents and to submittal and approval of plans prior to altering, modifying, or removing sprinkler systems.

SECTION 48. Comm 62.0903 (2) to (5) and (8) to (10) – Clarifies how the level of exit discharge affects sprinkler thresholds in several occupancies, and clarifies sprinkler thresholds in underlying parking garages and in fire stations.

Comm 62.0903 (13) – Clarifies that Comm 14, rather than Comm 61 to 65, contains the requirements for inspection, testing, and maintenance of fire sprinkler systems.

SECTIONS 50 and 52. Comm 62.0904 (1) and 62.0907 (1) – Clarifies that Comm 14, rather than Comm 61 to 65, contains the requirements for inspection, testing, and maintenance of alternative fire sprinkler systems and fire alarm systems.

SECTION 53. Comm 62.0910 – The text in IBC 910.1 is modified to no longer require smoke and heat vents, and curtain boards, in buildings that are protected by an approved automatic sprinkler system. The text in IBC 910.2.3 is modified to no longer require smoke and heat

vents in high-piled combustible storage areas that are protected by an early suppression fast-response automatic sprinkler system, as has been previously approved by the Department as an alternate standard. Text for corresponding curtain boards is also clarified, and the location requirements for them in the *International Fire Code*® are incorporated.

SECTION 55. Comm 62.1003 (1) – Text from the 2003 IBC is incorporated to clarify that the number of occupants which is determined by a reasonable seating layout (or any other reasonable number provided by the owner) can be used to design the means of egress (and to establish the minimum quantity of plumbing fixtures under IBC 2902.1). In several included, related sections, other clarifications, predominantly from the International Code Council®, are incorporated for clear door widths in restroom partitions, open risers, and accumulations of snow or ice on outdoor walking surfaces.

Comm 62.1003 (7) – Clarifies the clearance that is needed between doors in series, to avoid blockage by a wheelchair.

SECTION 56. Comm 62.1004 (1) – Incorporates a recent ICC clarification for allowing egress through stock rooms.

Comm 62.1004 (2) – Clarifies which intervening spaces can occur along a corridor without disrupting the continuity of the corridor.

SECTION 58. Comm 62.1005 (1) – Incorporates a recent ICC clarification for basing the number of exits for a story on the occupant loading for that story.

SECTION 59. Comm 62.1009 – Incorporates revised criteria and exceptions in the 2003 IBC for emergency escape and rescue openings.

SECTION 61. Comm 62.1103 (2) (g) – Allows omitting an accessible route to storage spaces that do not include permanent workstations, are infrequently accessed by employees, and are not open to the general public.

SECTIONS 62 to 64. Comm 62.1104 (3) (b) and (c) and (4) (b) – Incorporates revised criteria and exceptions in the 2003 IBC for accessible routes to assembly areas with fixed seating, press boxes, air traffic control towers, and two-story buildings with five or fewer people on one story.

SECTION 68. Comm 62.1106 (5) (b) 2. – Incorporates a 2003 ICC allowance for locating parking spaces in a nearby, different parking facility if substantially equivalent or greater accessibility is provided there.

SECTION 74. Comm 62.1403 (1) and (2) (b) – Clarifies where air retarders are required.

SECTION 75. Comm 62.1405 (2) – Codifies the parameters the Department has recently accepted for using extruded polystyrene sheathing as a required backing material for vinyl siding.

SECTION 79. Comm 62.1507 – Creates exceptions for allowing installation of single-ply thermoset or thermoply roofing membranes, and sprayed polyurethane foam or liquid-applied roofs, on slopes of less than 2 percent, if permitted by the manufacturer’s literature or listing criteria.

SECTION 81. Comm 62.1603 (1) – Requires construction plans to show any sloped-roof snow loads or any unbalanced, drift, or sliding snow loads.

SECTION 85. Comm 62.1607 (1) and (4) – Incorporates a recent ICC decision to (1) reduce the required minimum uniform live load in passenger-vehicle garages, from 50 psf to 40 psf; and (2) maintain a lower limit there of 30 psf if the alternative load-reduction calculations in IBC 1607.9.2 are used.

IBC Table 1607.1, Line 27 – For residential occupancies, revised minimum uniform live loads from the 2003 IBC are incorporated, with modifications to be consistent with Wisconsin’s one- and two-family dwelling code.

Comm 62.1607 (5) – Deletes a loading requirement for overhanging eaves, as has been deleted in the 2003 IBC.

SECTION 86. Comm 62.1608 (3) – Codifies the Department’s recent acceptance of an alternate standard from Canada for determining unbalanced snow loads on gable and hip roofs.

Comm 62.1608 (4) – Clarifies that an existing roof which is expected to be substantially impacted by drifting or sliding snow, as caused by a nearby, newly constructed, taller structure on the same property, must be analyzed for structural adequacy, and then be reinforced if necessary. Where the existing roof is on an adjoining property, the owner of the newly constructed structure would be required to notify the adjoining owner of the potential for increased snow loads.

SECTION 87. Comm 62.1611 – Creates an informational Note for proposed requirements in Comm 82 to not connect a secondary roof-drain system to a primary roof-drain system, and to discharge a secondary roof-drain system to the ground surface.

SECTION 90. Comm 62.1616 – Incorporates an exception from the 2003 IBC that allows use of IBC Table 1616.3(1) alone in determining the seismic design category, where specified criteria are met.

SECTION 94. Comm 62.1805 (2) – Incorporates design standard ANSI/ASAE EP486.1 OCT00 for shallow post foundations, as was added to the 2003 IBC; modifies the included Table 1; and clarifies that the standard, as modified, is an acceptable alternative to the design criteria in IBC section 1805.7.2.

SECTION 101. Comm 62.2403 Note – Clarifies that Comm 18 includes (1) a prohibition against elevator hoistway windows that give a false appearance of a floor level, and (2) a requirement that all glass in an elevator hoistway be laminated safety glazing conforming to IBC section 2406.1.

Comm 62.2406, 62.2407, and 62.2408 – Incorporates the 2003 IBC elimination of use of wired glass in E occupancies and in certain athletic facilities, due to injuries that have resulted from that use.

SECTION 102. Comm 62.2900 (2) – Clarifies that a separate room is not required for a service sink.

SECTION 103. Comm 62.2900 (4) (b) 3. – Clarifies that privacy compartments are not required for water closets in prison or jail cells.

SECTIONS 104 and 105. Comm 62.2902 (1) (a) 2. and (c) 2. – Clarifies that drinking fountains are not required where acceptable other drinking-water facilities are provided, and clarifies how the minimum number of bathtubs, showers, and water closets are determined for child day care facilities and day nurseries.

SECTION 107. Comm 62.2902 (1) (c) 3. and (d) – Completes compliance with the statutory requirements for equal, gender-based speed of access to toilets, where 500 or more people congregate.

SECTION 109. Comm 62.2902 (4) and (5) – Incorporates the 2003 IBC allowance for unseparated plumbing facilities where the occupant load is 50 or less, and clarifies how IBC Table 2902.1 distributes the facilities across the genders.

SECTION 111m. Comm 62.3006 (1) Note – Clarifies that Comm 18 prohibits (1) accessing an elevator machine room through a toilet room, sleeping room or private space; and (2) accessing other spaces in a building through an elevator machine room.

SECTION 115. Comm 62.3500 (2) (a) and (b), and (3) (a) and (d) – Updates the adopted version of the National Design Specification for wood; updates the adopted version the National Fire Protection Association standards for low expansion foam, carbon dioxide extinguishing systems, installation of sprinkler systems, installation of sprinkler systems in residential occupancies up to and including four stories in height, dry chemical extinguishing systems, wet chemical extinguishing systems, and the National Fire Alarm Code; incorporates an ANSI/ASAE standard for design of shallow post foundations; and incorporates the NFPA requirements for laboratory fume hoods.

SECTION 117. Comm 63.0003 (3) (c) 1. and 2. – Requires compliance with lighting conservation requirements in an altered area, rather than throughout a building, when an alteration replaces more than 50 percent of the lighting fixtures in the altered area.

SECTION 124. Comm 63.0605 (1) – Clarifies that if IECC chapter 6 is used instead of IECC chapter 5, separate electrical meters are still needed for individual dwelling units.

SECTION 131. Comm 63.1026 (2) (b) – Changes the minimum setting for thermostatic heating controls from 50°F to 55°F, to be consistent with the setting in IECC 503.3.2.2 and 803.3.3.3.1., and in Section 9.4.3.2.1 of ASHRAE 90.1-1989.

SECTION 132. Comm Table 63.1029 – Deletes the insulation thickness numbers for plumbing and HVAC piping, because they are no longer valid and the included R values provide all the information that is needed.

SECTION 133. Comm 63.1050 (6) – Clarifies that timers for exterior lighting controls must be capable of maintaining the correct time during a power outage that lasts up to 10 hours, rather than 10 hours or more.

SECTION 142. Comm Table 64.0403 – Clarifies the ventilation rates for car washes, and clarifies that the ventilation rate for an elevator is based on the floor area of the car rather than the floor area of the elevator shaft.

SECTIONS 143 and 144. Comm 64.0507 – Clarifies that Type I and II kitchen hoods are required in commercial-type kitchens, rather than in domestic-type kitchens which happen to be in commercial buildings; clarifies where Type I rather than Type II hoods are required; and incorporates approval of unvented, listed removal systems. (The UL design standard for these listed systems is incorporated in SECTION 150.)

SECTION 148. Comm 64.607 – Changes the IMC requirements for smoke and fire dampers in shaft enclosures, through penetrations, and ceiling membranes, to be consistent with concurrent changes to IBC sections 715.5.3.1, 715.6.1, and 715.6.2.

SECTION 155. Comm 65.0620 – Changes the prohibition of all gas-fired, unvented room heaters to be consistent with other sections of the Code that allow permanently installed, gas-fired, unvented room heaters.

SECTION 156. Comm 65.0700 – Updates the adopted version of the National Fire Protection Association code for fuel gas.

SECTION 1. Comm 61.02 (5) is created to read:

Comm 61.02 (5) This code also applies to any existing building that is converted to a community-based residential facility for 9 to 20 residents.

SECTION 2. Comm 61.03 (2) (c) Note, (3), and (5) are amended to read:

Comm 61.03 (2) (c) **Note:** Under s. Comm 62.0100 (~~4~~) and IBC section 102.4, where differences occur between the requirements of this code and referenced codes or standards, the requirements of this code apply.

(3) DEPARTMENT AUTHORITY. Pursuant to s. 101.02 (1), Stats., the department reserves the right to interpret the requirements in this ~~chapter~~ code and in all adopted codes and standards.

(5) ALTERNATIVES. Nothing in this code is intended to prohibit or discourage the design and utilization of new building products, systems, ~~or components,~~ or alternate practices, provided written approval from the department is obtained first.

SECTION 3. Comm 61.03 (5) Note is created to read:

Comm 61.03 (5) Note: Subchapter V contains requirements for approval of building products and alternate standards.

SECTION 4. Comm 61.03 (6) (intro.), (7) (intro.), (8) (intro.), and (9) (intro.) are amended to read:

Comm 61.03 (6) NEW BUILDINGS AND STRUCTURES. Buildings, structures and additions to buildings, structures and components, to be constructed or erected ~~on or after the effective dates of the rules under this code~~ shall be designed, constructed and maintained in accordance with the rules of this code as ~~these~~ the rules exist on one of the following:

(7) (intro.) ALTERATIONS. Those portions, elements, systems or components of existing buildings and structures to be altered or modified ~~on or after the effective dates of the rules under this code and,~~ where the alteration or the modification affects a building element or component relating to subject matters regulated by this code, shall be designed, constructed and maintained in accordance with the ~~applicable~~ rules of this code as the rules exist on one of the following:

(8) (intro.) REPLACEMENTS. Those building systems or components of existing buildings and structures to be ~~replaced on or after the effective dates of the rules under this code and,~~ where the replacement involves a building element or component relating to subject matters regulated by this code, shall conform and be maintained in accordance with the ~~applicable~~ rules of this code as these rules exist on ~~either~~ one of the following:

(9) (intro.) REPAIRS. Those portions, elements, systems or components of existing buildings and structures repaired ~~on or after the effective dates of the rules under this code~~ shall conform and be maintained in accordance with the ~~standards~~ rules of this code as ~~these~~ the ~~standards~~ rules exist on one of the following:

SECTION 5. Comm 61.03 (10) (a) 4. and Note are created to read:

Comm 61.03 (10) (a) 4. The date an occupancy permit is issued, where subds. 1. to 3. do not apply.

Note: Some requirements of this code apply only to buildings, building additions, or other structures, which are constructed after the implementation of this code in 2002 and which were not approved under chs. Comm 50 to 64 prior to that implementation – and therefore do not apply to new uses in a building that predates this code. For example, IBC section 501.1 states that the provisions of IBC chapter 5 “control the height and area of structures hereafter erected and additions to existing structures,” and IBC sections 903.2 and 905.1 apply their

requirements for fire sprinkler systems and standpipes to only “new buildings and structures.” In this context, “hereafter” and “new” refer to construction which occurs after the implementation of this code in 2002 and which was not approved under chs. Comm 50 to 64 prior to that implementation. However, the remaining sections of this code are not negated by these three IBC sections, and consequently may apply to new uses in a building that predates this code. For example, the requirements in IBC chapters 3, 4, or 10 may result in needing to install fire sprinklers in order to achieve a desired new use, regardless of when the building was constructed. In addition, the area and height limits in IBC chapter 5 and the sprinkler criteria in IBC chapter 9, in conjunction with par. (b), may contribute to determining whether a proposed use is allowable in a building, or a desired portion thereof, that predates this code.

SECTION 6. Comm 61.03 (10) (b) is amended to read:

Comm 61.03 (10) (b) This subsection does not apply to a temporary use approved under sub. (11), or to a new use that will be equally or less hazardous, based on life and fire risk, than an existing use.

Note: For determining whether a new use will be more hazardous than an existing use, consider how this code would address the two uses if they were both proposed for a new building. If the new use would be treated more restrictively, such as limited to a smaller area, lower story, lower fire sprinkler threshold, or shorter exit distance, then the new use is more hazardous than the existing use, and is not exempted under this paragraph.

SECTION 7. Comm 61.03 (12) is renumbered Comm 61.03 (12) (a) and amended to read:

Comm 61.03 (12) (a) Unless otherwise specifically stated in this code, an existing building or structure, and every element, system, or component of an existing building or structure shall be maintained to conform with the building code requirements that applied when the building, structure, element, system, or component was constructed, ~~and to conform with ch. Comm 14 wherever applicable.~~

SECTION 8. Comm 61.03 (12) (b) is created to read:

Comm 61.03 (12) (b) Buildings and structures within the scope of chs. Comm 75 to 79, and every element, system, or component of those buildings and structures shall be maintained to conform with that code.

SECTION 9. Comm 61.03 (13) (a) 1. and 6. and Note are amended to read:

Comm 61.03 (13) (a) 1. Design and construction-related requirements shall apply that are addressed in IFC section 102.6; IFC chapters 2 to 4; IFC sections 501 to 502 and 504 to 510; IFC sections 601 to 605 and 607 to 609; IFC chapters 7 and 8; IFC sections 901.1 to 901.4.2, 901.4.4 to 909.18.9, and 909.20 to 913; ~~and~~ IFC chapters 10, 12 to 21, 23 to 29, 31, and 32; IFC section 3306; and IFC chapters 36, 37, and 39 to 44.

6. Use and operation provisions shall apply which are a contingency of design and construction-related requirements and which are addressed in IFC chapters 2 to 4; IFC sections

501 to 502 and 504 to 510; IFC sections 601 to 605 and 607 to 609; IFC chapters 7 and 8; IFC sections 901.1 to 901.4.2, 901.4.4 to 909.18.9, and 909.20 to 913; ~~and~~ IFC chapters 10, 12 to 21, 23 to 29, 31, and 32; IFC section 3306; and IFC chapters 36, 37, and 39 to 44.

Note: The department and other state agencies may have other rules that may affect the design, construction, maintenance and use of public buildings and places of employment, including chs. Comm 5, Licenses, Certifications, and Registrations; Comm 7, Explosive Materials; Comm 9, Manufacture of Fireworks; Comm 10, Flammable and Combustible Liquids; Comm 14, Fire Prevention; Comm 16, Electrical; Comm 18, Elevators; Comm 40, Gas Systems; Comm 41, Boilers and Pressure Vessels; Comm 43, Anhydrous Ammonia; Comm 45, Mechanical Refrigeration; Comm 70, Historic Buildings; ~~and~~ Comm 75 to 79, Existing Buildings; Comm 81 to 87, Plumbing; Comm 90, Public Swimming Pools; and Comm 91, Sanitation. The department's Safety and Buildings Division administers all of these listed codes except ch. Comm 10, which is administered by the department's Environmental and Regulatory Services Division.

SECTION 10. Comm 61.04 (1) is amended to read:

Comm 61.04 (1) “Authorized representative” means any certified municipality or county as specified in s. Comm ~~61.70~~ 61.60, and any appointed agent as specified in s. Comm ~~61.71~~ 61.61.

SECTION 11. Comm 61.04 (3) and (4) are renumbered Comm 61.04 (5) and (6).

SECTION 12. Comm 61.04 (3) is created to read:

Comm 61.04 (3) “Dwelling unit” has the meaning given in s. 101.61 (1), Stats., for the purpose of determining whether this code applies to a residential occupancy. For all other purposes, the meaning is as given in IBC section 202, IECC section 202, and IMC section 202.

Note: Section 101.61 (1), Stats., reads in part: “ ‘Dwelling unit’ means a structure or that part of a structure which is used or intended to be used as a home, residence or sleeping place by one person or by 2 or more persons maintaining a common household, to the exclusion of all others.”

SECTION 13. Comm 61.05 Note is amended to read:

Comm 61.05 Note: A copy of the *International Building Code*[®], *International Energy Conservation Code*[®], *International Mechanical Code*[®], and *International Fuel Gas Code*[®] is on file in the offices of the department, the secretary of state, and the revisor of statutes. Copies of the International Codes may be purchased from the following ~~organizations~~ organization:

~~Building Officials and Code Administrators International, Inc.~~ Code Council[®], 4051 West Flossmoor Road, Country Club Hills, IL 60478-~~5695~~ 5795, (708) 799-2300, ~~web page~~ Web site ~~www.bocaiiccsafe.org.~~

~~International Conference of Building Officials, 5360 Workman Mill Road, Whittier, CA, 90601-2298, (562) 699-0541, web page www.icbo.org.~~

~~Southern Building Code Congress International, Inc. 900 Montclair Road, Birmingham, AL, 35213-1206, (205) 591-1853, web page ww.sbcc.org.~~

SECTION 14. Comm 61.115 (1) (intro.) and (2) are amended to read:

Comm 61.115 (1) (intro.) A notice of intent for coverage under a Wisconsin Pollutant Discharge Elimination System (WPDES) General Permit No. WI-0067831-1 for storm water discharges associated with construction activities, as required by 40 CFR part 122, shall be filed by the landowner for the construction project of a public building or a building that is a place of employment disturbing 5 one or more acres of land. A construction site soil erosion control plan and storm water management plan shall be prepared in accordance with good engineering practices and the design criteria, standards and specifications outlined in the Wisconsin Construction Site Best Management Practices Handbook published by the department of natural resources (WDNR Pub. WR-222 November 1993 Revision).

(2) A notice of intent shall be filed either with the department or with certified municipalities and counties authorized to review plans and perform inspections under s. Comm ~~61.70~~ 61.60. Municipalities and counties shall file a copy of the notice of intent with the department. The notice of intent shall be filed on form ~~3400-161 published by the department of natural resources~~ SBD-10376.

SECTION 15. Comm 61.30 (1) (b) 1. and 2. b. are amended to read:

Comm 61.30 (1) (b) 1. Plans for community-based residential facilities serving 5 to 8 unrelated adults and the types of public buildings and places of employment and components thereof delineated in Table 61.30-1 do not need to be submitted and approved by the department or authorized representative.

2. b. The project is supervised by an individual in accordance with s. Comm ~~61.50~~ 61.40.

SECTION 16. Comm 61.30 (4) is created to read:

Comm 61.30 (4) Exclusion for minor alterations. This section does not apply for minor alterations where the building official agrees the nature of the work is such that review and approval of construction documents is not necessary to achieve compliance with this code.

SECTION 17. Comm Table 61.30-3 is amended to read:

Table 61.30-3

Building Components and Systems
(Partial Table)

Building Component or System	Building Type or Occupancy
Fire Protection System	Residential Group R-1, <u>R-2</u>

SECTION 18. Comm 61.31 (2) (b) 2. is renumbered Comm 61.31 (2) (b) 2. a.

SECTION 19. Comm 61.31 (2) (b) 2. b. and (3) Note (2) are created to read:

Comm 61.31 (2) (b) 2. b. One complete set of plans may be submitted, provided it is accompanied with 3 copies of the cover sheet for the complete set, and provided all 4 cover sheets comply with sub. (1) (a).

(3) Note: Under s. 145.195, Stats., “No county, city, town or village may issue a building permit for construction of any structure requiring connection to a private domestic sewage treatment and disposal system unless a system satisfying all applicable regulations already exists to serve the proposed structure or all permits necessary to install such a system have been obtained.” See ch. Comm 83 for applicable regulations.

SECTION 20. Comm 61.39 (title) and 61.39 are amended to read:

Comm 61.39 (title) Registration of Cross Connection Control ~~Devices~~ Assemblies.
Cross connection control ~~devices~~ assemblies to be installed in water-based fire protection systems shall be registered with the department in accordance with ch. Comm 82.

SECTION 21. Comm 61 subchapter IV is repealed.

SECTION 22. Comm 61 subchapters V to VII are renumbered Comm 61 subchapters IV to VI.

SECTION 23. Comm 61.50, 61.51, 61.60, 61.61, 61.70, and 61.71 are renumbered Comm 61.40, 61.41, 61.50, 61.51, 61.60, and 61.61.

SECTION 24. Comm 61.50 (3) (d) 4., as renumbered, is amended to read:

Comm 61.50 (3) (d) 4. If a supervising professional is not required for the project by s. Comm ~~61.50~~ 61.40, a person responsible for construction of the project shall be designated in writing by the owner.

SECTION 25. Comm 61.60 (5) (b) Note, (e) 1. b., and (6) Note, as renumbered, are amended to read:

Comm 61.60 (5) (b) **Note:** Second class cities may also request approval to perform other additional plan review functions under the appointed-agent process in s. Comm ~~61.71~~ 61.61.

(e) 1. b. Plans for a building or structure that exceeds the limits specified in par. (c) which are submitted either to a second class city under par. (b) or to an appointed agent under s. Comm ~~61.61~~ 61.51 shall include the department's plan approval application form specified in s. Comm 61.31, unless a municipally supplied form is submitted ~~that includes the owner's, designer's and supervising professional's statements and signatures which are required on the department's form.~~

(6) Note: Certified municipalities are authorized to perform the inspections specified in s. Comm ~~61.51~~ 61.41.

SECTION 26. Comm 61.61 (2) (a) (intro.) and 2. and (b) 1., as renumbered, are amended to read:

Comm 61.61 (2) (a) Before assuming any of the department's plan examination or building inspection responsibilities that are not listed in s. Comm ~~61.70~~ 61.60 (5), the applicant shall comply with all of the following:

2. Include in the request a description of the desired responsibilities, such as plan examination for buildings that are not within the applicant's jurisdiction, or plan examination for building additions or alterations that are beyond the limits specified in s. Comm ~~61.70~~ 61.60 (5) (c).

(b) 1. Apply the corresponding requirements in s. Comm ~~61.70~~ 61.60 (5) (d) to (h) and (6).

SECTION 27. Comm 62.0100 is amended to read:

Comm 62.0100 Administration. Except for the requirements in IBC ~~sections~~ section 102.4 ~~and 115~~, the requirements in IBC chapter 1 are not included as part of this code.

SECTION 28. Comm 62.0100 Note (3) is created to read:

Comm 62.0100 Note: IBC section 101.2 addresses the scope of the IBC. For the scope of the Wisconsin Commercial Building Code, see s. Comm 61.02. Three or more attached townhouses, as referenced in an exception under IBC section 101.2, are included within the scope listed in s. Comm 61.02. Detached one- and two-family dwellings, as likewise referenced in an exception under IBC section 101.2, and elsewhere in the IBC, are not included within the scope listed in s. Comm 61.02, but are regulated in Wisconsin by chs. Comm 20 to 25, in accordance with subch. II of ch. 101, Stats.

SECTION 29. Comm 62.0115 is repealed.

SECTION 30. Comm 62.0202 (1) (a) is amended to read:

Comm 62.0202 (1) (a) “Air ~~barrier~~ retarder” means a material or combination of materials collectively having a maximum air leakage rate of 0.06 cfm/ft.² at 0.30 in. H₂O, when tested in accordance with ASTM E 783, installed to resist air leakage into the exterior envelope.

SECTION 31. Comm 62.0202 (1) (j) and Note are renumbered Comm 61.04 (4) and Note.

SECTION 31m. Comm 62.0202 (1) (b) to (i) are renumbered Comm 62.0202 (1) (c) to (j).

SECTION 31n. Comm 62.0202 (1) (b) is created to read:

Comm 62.0202 (1) (b) “High-piled combustible storage” means storage of combustible materials in closely packed piles, or on pallets, in racks or on shelves, where the top of storage is greater than 12 feet in height. When required by the fire code official, high-piled combustible storage also includes certain high-hazard commodities, such as rubber tires, Group A plastics, flammable liquids, idle pallets and similar commodities, where the top of storage is greater than 6 feet in height.

SECTION 32. Comm 62.0202 (2) (b) is repealed and recreated to read:

Comm 62.0202 (2) (b) “Basement” means that portion of a building that is partly or completely below grade. See IBC definition for “Story Above Grade Plane” and IBC section 502.1.

SECTION 33. Comm 62.0202 (3) is created to read:

Comm 62.0202 (3) DELETIONS. The following terms and corresponding definitions in IBC section 202 are not included as part of this code: approved agency, approved fabricator, base flood, base flood elevation, certificate of compliance, design flood, design flood elevation, dry floodproofing, existing construction, fabricated item, inspection certificate, label, lowest floor, manufacturer’s designation, mark, quality assurance plan, special continuous inspection, special flood hazard area, special inspection, special periodic inspection, sprayed fire-resistant materials, start of construction, and structural observation.

SECTION 34. Comm 62.0302, 62.0303, 62.0304, and 62.0305 are created to read:

Comm 62.0302 Incidental use areas, and separation of identically classified occupancies. (1) Substitute the following wording for the requirements but not the exception in IBC section 302.1.1: Spaces which are incidental to the main occupancy shall be separated or protected, or both, in accordance with IBC Table 302.1.1 or the building shall be classified as a mixed occupancy and comply with IBC section 302.3. Areas that are incidental to the

main occupancy shall be classified in accordance with the main occupancy of the portion of the building in which the incidental use area is located.

(2) Substitute the following wording for the requirements in IBC Table 302.1.1, but not for the note or footnote under the Table:

**TABLE 302.1.1
INCIDENTAL USE AREAS**

ROOM OR AREA	SEPARATION^a
Furnace room where any piece of equipment is over 400,000 Btu per hour input	1 hour or provide automatic fire-extinguishing system
Rooms with any boiler over 15 psi and 10 horsepower	1 hour or provide automatic fire-extinguishing system
Refrigerant machinery rooms	1 hour or provide automatic sprinkler system
Parking garage (IBC section 406.2)	2 hours; or 1 hour and provide automatic fire-extinguishing system
Hydrogen cut-off rooms	1-hour fire barriers and floor/ceiling assemblies in Group B, F, H, M, S and U occupancies. 2-hour fire barriers and floor/ceiling assemblies in Group A, E, I and R occupancies.
Incinerator rooms	2 hours and automatic sprinkler system
Paint shops, not classified as Group H, located in occupancies other than Group F	2 hours; or 1 hour and provide automatic fire-extinguishing system
Laboratories and vocational shops, not classified as Group H, located in Group E or I-2 occupancies	1 hour or provide automatic fire-extinguishing system
Laundry rooms over 100 square feet	1 hour or provide automatic fire-extinguishing system
Storage rooms over 100 square feet	1 hour or provide automatic fire-extinguishing system
Group I-3 cells equipped with padded surfaces	1 hour
Group I-2 waste and linen collection rooms	1 hour
Waste and linen collection rooms over 100 square feet	1 hour or provide automatic fire-extinguishing system
Stationary lead-acid battery systems having a liquid capacity of more than 100 gallons used for facility standby power, emergency power or uninterrupted power supplies	1-hour fire barriers and floor/ceiling assemblies in Group B, F, H, M, S and U occupancies. 2-hour fire barriers and floor/ceiling assemblies in Group A, E, I and R occupancies.

(3) In IBC Table 302.3.3, substitute a dash for each hourly separation between two occupancies having the same classification.

Comm 62.0303 Assembly Group A. (1) GENERAL. Substitute the following wording for the introductory paragraph in IBC section 303.1: Assembly Group A occupancy includes, among others, the use of a building or structure, or a portion thereof, for the gathering together of persons for purposes such as civic, social or religious functions, recreation, food or drink consumption or awaiting transportation. A room or space used for assembly purposes by less than 50 persons and accessory to another occupancy shall be included as a part of that occupancy. Assembly areas with less than 750 square feet and which are accessory to another occupancy according to IBC section 302.2.1 are not assembly occupancies. Assembly occupancies which are accessory to Group E in accordance with IBC section 302.2 are not considered assembly occupancies. Religious educational rooms and religious auditoriums which are accessory to churches in accordance with IBC section 302.2 and which have occupant loads of less than 100 shall be classified as A-3. Assembly occupancies shall include the following:

(2) NONACCESSORY ASSEMBLY USE. This is a department rule in addition to the requirements in IBC section 303.1: A nonaccessory building or tenant space used for assembly purposes by less than 50 persons shall be considered a Group B occupancy.

Comm 62.0305 Educational Group E. Substitute the following wording for the requirements in IBC section 305.1: Educational Group E occupancy includes, among others, the use of a building or structure, or a portion thereof, by 6 or more persons at any one time for educational purposes through the 12th grade. Religious educational rooms and religious auditoriums, which are accessory to churches in accordance with IBC section 302.2 and have occupant loads of less than 100, shall be classified as A-3 occupancies.

SECTION 35. Comm 62.0310 is renumbered Comm 62.0310 (2).

SECTION 36. Comm 62.0310 (1) is created to read:

Comm 62.0310 (1) Substitute the following wording for the introductory paragraph of the R-2 description under IBC section 310.1: Residential occupancies containing sleeping units or more than two dwelling units where the occupants are primarily permanent in nature, including:

SECTION 37. Comm 62.0400 (4) is amended to read:

Comm 62.0400 (4) COMMUNITY-BASED RESIDENTIAL FACILITIES. A newly constructed building or portion thereof that is a community-based residential facility serving ~~three~~ 5 to ~~eight~~ 8 unrelated adults shall comply with chs. Comm 20 to 25 instead of all other requirements of this code.

SECTION 38. Comm 62.0404 is created to read:

Comm 62.0404 Atrium definition. Substitute the following definition for the corresponding definition listed in IBC section 404.1.1: ATRIUM. An opening connecting two or more stories other than enclosed stairways, elevators, hoistways, escalators, plumbing, electrical, air-conditioning or other equipment, which is closed at the top and not defined as a mall. Stories, as used in this definition, do not include balconies within assembly groups, or mezzanines that comply with IBC section 505.

SECTION 39. Comm 62.0406 is repealed and recreated to read:

Comm 62.0406 Motor vehicle-related occupancies. (1) PARKING GARAGES. Substitute the following wording for the requirements and exception in IBC section 406.2.8: Heating equipment shall be installed in accordance with the *International Mechanical Code*.

(2) REPAIR GARAGES. (a) Substitute the following wording for the requirements in IBC section 406.6.2: Mixed uses shall be allowed in the same building as a repair garage subject to the provisions of IBC section 302.3.

(b) Substitute the following wording for the requirements in IBC section 406.6.5: Heating equipment shall be installed in accordance with the *International Mechanical Code*.

SECTION 40. Comm 62.0412 is created to read:

Comm 62.0412 Aircraft-related occupancies. Substitute the following wording for exception 1 in IBC section 412.2.4: Heating equipment that is suspended at least 10 feet above the upper surface of wings or engine enclosures of the highest aircraft which may be housed in the hangar; or at least 8 feet above the floor in shops, offices and other sections of the hangar communicating with storage or service areas.

SECTION 40m. Comm 62.0415 is renumbered Comm 62.0415 (1).

SECTION 40n. Comm 62.0415 (2) is created to read:

Comm 62.0415 (2) The requirements in IBC section 415.6 are not included as part of this code.

SECTION 41. Comm 62.0500 is renumbered Comm 62.0509

SECTION 42. Comm 62.0603 is created to read:

Comm 62.0603 Combustible material in Type I and II construction. (1) Substitute the following wording for footnote c.3 in IBC Table 601: In Type I and II construction, fire-retardant-treated wood shall be allowed in buildings including girders and trusses as part of the roof construction when the building is any of the following:

(a) Two stories or less in height.

(b) Type II construction over 2 stories.

(c) Type I construction over 2 stories and the vertical distance from the upper floor to the roof is 20 feet or more.

(2) Substitute the following wording for application 19 in IBC section 603.1: Sprayed cementitious and mineral fiber fire-resistance-rated materials.

SECTION 43. Comm 62.0706 is created to read:

Comm 62.0706 Fire barriers. (1) SEPARATION OF OCCUPANCIES OR FIRE AREAS. Substitute the following wording and table for the requirements in IBC section 706.3.5:

(a) *Mixed occupancies.* Where the provisions of IBC section 302.3.3 are applicable, the fire barrier separating mixed occupancies shall have a fire-resistance rating of not less than that indicated in IBC section 302.3.3 based on the occupancies being separated.

(b) *Single-occupancy fire areas.* The fire barrier separating a single occupancy into different fire areas shall have a fire-resistance rating of not less than that indicated in Table 62.0706.

Table 62.0706

Fire-Resistance Rating Requirements for Fire Barrier Assemblies Between Fire Areas

Occupancy Group	Fire-Resistance Rating (Hours)
H-1, H-2	4
F-1, H-3, S-1	3
A, B, E, F-2, H-4, H-5, I, M, R, S-2	2
U	1

(2) CONTINUITY OF FIRE BARRIER WALLS. Substitute the following wording for the requirements in IBC section 706.4: Fire barrier walls shall extend from the top of the floor/ceiling assembly below to the underside of the floor or roof slab or deck above and shall be securely attached thereto. These walls shall be continuous through concealed spaces such as the space above a suspended ceiling. The supporting construction for fire barrier walls shall be protected to afford the required fire-resistance rating of the fire barrier supported except for 1-hour fire-resistance-rated incidental use area separations as required by IBC Table 302.1.1 in buildings of Type IIB, IIIB and VB construction. Hollow vertical spaces within the fire barrier wall shall be firestopped at every floor level.

SECTION 43m. Comm 62.0711 is created to read:

Comm 62.0711 Electrical outlet boxes. This is a department rule in addition to the requirements in Exception 2 in IBC section 711.3.2: Outlet boxes on opposite sides of the wall shall be separated in accordance with one of the following:

- (1) By a horizontal distance of not less than 24 inches.
- (2) By solid fire-blocking in accordance with IBC section 716.2.1.
- (3) By protecting both boxes by listed putty pads.
- (4) By other listed materials and methods.

SECTION 44. Comm 62.0715 and (title) are renumbered Comm 62.0715 (2) and (title).

SECTION 45. Comm 62.0715 (title), (1), (3), and (4) are created to read:

Comm 62.0715 (title) Ducts and air-transfer openings. (1) PENETRATIONS OF SHAFT ENCLOSURES. (a) Substitute the following wording for exception 3 in IBC section 715.5.3.1: Ducts are used as part of an approved smoke control system designed and installed in accordance with IBC section 909, and where the fire damper will interfere with the operation of the smoke control system.

(b) These are additional department exceptions to the requirements in IBC section 715.5.3.1:

1. In Group B occupancies, equipped throughout with an automatic sprinkler system in accordance with IBC section 903.3.1.1, smoke dampers are not required at penetrations of shafts where bathroom and toilet room exhaust openings have steel exhaust subducts with a wall thickness of at least 0.019 inches that extend at least 22 inches vertically and the exhaust fan at the upper terminus, powered continuously in accordance with the provisions of IBC section 909.11, maintains airflow upward to the outside.

2. Smoke dampers are not required at penetration of exhaust or supply shafts in parking garages that are separated from other building shafts by not less than 2-hour fire-resistance-rated construction.

3. Smoke dampers are not required in ducts that are used as part of an approved mechanical smoke control system, designed and installed in accordance with IBC section 909, and the smoke dampers will interfere with the operation of the smoke control system.

4. Smoke dampers are not required in ducts that are used in the exhaust portion of systems which are designed and installed in accordance with NFPA 45.

(3) THROUGH PENETRATIONS. Substitute the following wording for the requirements in IBC section 715.6.1: (a) Except as provided in par. (b), in occupancies other than Groups I-2 and I-3, a duct and air transfer opening system constructed of approved materials in accordance with the *International Mechanical Code* that penetrates a fire-resistance-rated floor/ceiling assembly that connects not more than two stories is permitted without shaft enclosure protection provided a fire damper is installed at the floor line.

(b) In Group R occupancies, a duct may penetrate three floors or less without a fire damper at each floor provided it meets all of the following requirements:

1. The duct shall be contained and located within the cavity of a wall and shall be constructed of steel not less than 0.019 inch (0.48 mm) (26 gauge) in thickness.

2. The duct shall open into only one dwelling unit or sleeping unit and the duct system shall be continuous from the unit to the exterior of the building.

3. The duct shall not exceed 4-inch nominal diameter and the total area of such ducts shall not exceed 100 square inches for any 100 square feet of floor area.

4. The annular space around the duct is protected with materials that prevent the passage of flame and hot gases sufficient to ignite cotton waste where subjected to ASTM E 119 time temperature conditions under a minimum positive pressure differential of 0.01 inch of water at the location of the penetration for the time period equivalent to the fire-resistive rating of the construction penetrated.

5. Grille openings located in a ceiling of a fire-resistance-rated floor/ceiling or roof/ceiling assembly shall be protected with a ceiling radiation damper in accordance with IBC section 715.6.2.

(4) MEMBRANE PENETRATIONS. Substitute the following wording for the requirements in IBC section 715.6.2: (a). *Ceiling membranes.* Duct systems constructed of approved materials in accordance with the *International Mechanical Code* that penetrate the ceiling membrane of a fire-resistance-rated floor/ceiling or roof/ceiling assembly shall be protected with one of the following:

1. A fire-resistance-rated shaft enclosure in accordance with IBC sections 707 and 712.4.

2. An approved ceiling radiation damper installed at the ceiling line where the duct system penetrates the ceiling of a fire-resistance-rated floor/ceiling or roof/ceiling assembly.

3. An approved ceiling radiation damper installed at the ceiling line where a diffuser with no duct attached penetrates the ceiling of a fire-resistance-rated floor/ceiling or roof/ceiling assembly.

(b) *Ceiling radiation dampers.* Ceiling radiation dampers utilized under par. (a) shall be tested in accordance with UL 555C and installed in accordance with the manufacturer's installation instructions and listing. Ceiling radiation dampers are not required where either of the following apply:

1. ASTM E 119 fire tests have shown that ceiling radiation dampers are not necessary in order to maintain the fire-resistance rating of the assembly.

2. Exhaust duct penetrations are protected in accordance with IBC section 711.4.2 and the exhaust ducts are located within the cavity of a wall, and do not pass through another dwelling unit or tenant space.

SECTION 46. Comm 62.0901 (1) Note is repealed and recreated to read:

Comm 62.0901 (1) Note: Chapter Comm 14 has requirements relating to shutting down or impairing fire sprinkler systems. Chapter Comm 61 has requirements relating to availability of sprinkler documents and to submittal and approval of plans prior to altering, modifying, or removing sprinkler systems.

SECTION 47. Comm 62.0903 (2) to (5) are renumbered Comm 62.0903 (6), (7), (11), and (12).

SECTION 48. Comm 62.0903 (2) to (5), (8) to (10), and (13) are created to read:

Comm 62.0903 (2) GROUP A-1. Substitute the following wording for condition 3 in IBC section 903.2.1.1: None of the stories in which the fire area is located include a level of exit discharge.

(3) GROUP A-2. Substitute the following wording for condition 3 in IBC section 903.2.1.2: None of the stories in which the fire area is located include a level of exit discharge.

(4) GROUP A-3. Substitute the following wording for condition 3 in IBC section 903.2.1.3: None of the stories in which the fire area is located include a level of exit discharge.

(5) GROUP E. Substitute the following wording for the requirements, but not the exception, in IBC section 903.2.2: An automatic sprinkler system shall be provided throughout all Group E fire areas greater than 20,000 square feet in area. An automatic sprinkler system shall also be provided within every story of educational buildings that is located below a story which includes the lowest level of exit discharge.

(8) GROUP S-2. Substitute the following wording for the requirements, but not the exception, in IBC section 903.2.11: An automatic sprinkler system shall be provided throughout buildings classified as enclosed parking garages in accordance with IBC section 406.4 where located beneath other groups.

(9) GROUP S-2 EXCEPTION. This is an additional department exception to the requirements in IBC section 903.2.11: Enclosed parking garages for fire apparatus and fire department vehicles that are located beneath fire stations.

(10) COMMERCIAL PARKING GARAGE EXCEPTION. This is a department exception to the requirements in IBC section 903.2.11.1: Enclosed parking garages for fire apparatus and fire department vehicles where within the fire stations.

(13) TESTING AND MAINTENANCE. Substitute the following informational note for the requirements in IBC section 903.5:

Note: See ch. Comm 14 for requirements for inspection, testing, and maintenance of fire sprinkler systems.

SECTION 49. Comm 62.0904 (intro.), (1), and (2) are renumbered Comm 62.0904 (2), (2) (a), and (2) (b), and Comm 62.0904 (2) (b) 2. c., as renumbered, is repealed and recreated to read:

Comm 62.0904 (2) (b) 2. c. All above ground piping of the manual-wet sprinkler system shall be labeled as a “manual-wet sprinkler system.” Labels shall be placed at the fire department connection; at all valves and hose outlets; and on the piping at intervals of not more than 25 feet and at each side where the piping passes through a wall, floor or roof.

SECTION 50. Comm 62.0904 (1) is created to read:

Comm 62.0904 (1) Substitute the following wording and informational note for the requirements in IBC section 904.1: Automatic fire-extinguishing systems, other than automatic sprinkler systems, shall be designed and installed in accordance with the provisions of IBC section 904 and the applicable referenced standards.

Note: See ch. Comm 14 for requirements for inspection, testing, and maintenance of alternate automatic fire-extinguishing systems.

SECTION 51. Comm 62.0907 (1) to (3) are renumbered Comm 62.0907 (2) to (4).

SECTION 52. Comm 62.0907 (1) is created to read:

Comm 62.0907 (1) GENERAL. Substitute the following wording and informational note for the requirements in IBC section 907.1: IBC section 907 covers the application and installation of fire alarm systems and their components.

Note: See ch. Comm 14 for requirements for performance and maintenance of fire alarm systems and their components.

SECTION 53. Comm 62.0910 is created to read:

Comm 62.0910 Smoke and heat vents, and curtain boards. (1) EXCEPTION. Substitute the following wording for the exception in IBC section 910.1: Buildings protected by an approved automatic sprinkler system.

(2) GROUPS F–1 AND S–1. Substitute the following wording for the requirements in IBC section 910.2.1: Buildings and portions thereof used as Group F–1 or S–1 occupancies having more than 50,000 square feet in area that is undivided by full-height walls having smoke resisting characteristics which are similar to those under IBC section 910.3.4.1.

(3) **HIGH-PILED COMBUSTIBLE STORAGE AREAS.** This is a department exception to the requirements in IBC section 910.2.3: Smoke and heat vents are not required for high-piled combustible storage areas that are protected by an early suppression fast-response automatic sprinkler system installed in accordance with NFPA 13.

(4) **DESIGN AND INSTALLATION.** Substitute the following wording for the requirements in IBC section 910.3: The design and installation of smoke and heat vents and curtain boards shall be as specified in IBC section 910.3 and IBC Table 910.3.

(5) **CURTAIN BOARD DEPTH IN GROUP F-1.** This is an additional department footnote to IBC Table 910.3, for use in determining the minimum curtain board depth in a Group F-1 occupancy: Footnote d. H is the height of the vent above the floor.

(6) **CURTAIN BOARD LOCATIONS.** Substitute the following wording for the requirements in IBC section 910.3.4: Where curtain boards are required by the *International Fire Code*, they shall be provided in accordance with IBC section 910.3.

SECTION 54. Comm 62.1003 (1) and (2) are renumbered Comm 62.1003 (2) and (5).

SECTION 55. Comm 62.1003 (1), (3), (4), and (6) to (11) are created to read:

Comm 62.1003 (1) DESIGN OCCUPANT LOAD. Substitute the following wording for the requirements in IBC sections 1003.2.2 and 1003.2.2.1 to 1003.2.2.3: (a) *General.* In determining means of egress requirements, the number of occupants for whom means of egress facilities shall be provided shall be determined in accordance with this subsection. Where occupants from accessory areas egress through a primary space, the calculated occupant load for the primary space shall include the total occupant load of the primary space plus the number of occupants egressing through it from the accessory area.

(b) *Areas without fixed seating.* The number of occupants shall be computed at the rate of one occupant per unit of area as prescribed in IBC Table 1003.2.2.2. For areas without fixed seating, the occupant load may not be less than that number determined by dividing the floor area under consideration by the occupant-per-unit-of-area factor assigned to the occupancy as set forth in IBC Table 1003.2.2.2. Where an intended use is not listed in IBC Table 1003.2.2.2, the building official shall establish a use based on a listed use that most nearly resembles the intended use.

(c) *Exception.* Where approved by the building official, the actual number of occupants for whom each occupied space, floor or building is designed, if less than that determined by calculation, shall be permitted to be used in establishing the design occupant load.

(3) MECHANICAL EQUIPMENT. This is a department rule in addition to the requirements in IBC section 1003.2.12.4: The guard shall extend not less than 30 inches beyond each end of such appliance, equipment, fan or component.

(4) ACCESSIBLE MEANS OF EGRESS, GENERAL. Substitute the following wording for component 1 in IBC section 1003.2.13.1: Accessible routes complying with s. Comm 62.1104.

(6) CLEAR DOOR OPENINGS FOR NONACCESSIBLE STALLS. This is an additional department exception to the requirements in IBC section 1003.3.1.1: The clear door opening for a nonaccessible toilet stall, shower stall, or other similar compartment, may be less than 32 inches wide.

(7) DOOR ARRANGEMENT. This is an additional department exception to the requirements in IBC section 1003.3.1.7: Where ample maneuvering space exists between the doors such that use by an individual in a wheelchair will not block the operation of the doors.

(8) SOLID RISERS NOT REQUIRED. Substitute the following wording for exception 2 in IBC section 1003.3.3.3.2: Solid risers are not required in Group I-3, F, H and S occupancies, other than areas of parking structures accessible to the public.

(9) OUTDOOR STAIRWAYS. Substitute the following wording for the requirements in IBC section 1003.3.3.5.2: Outdoor stairways and outdoor approaches to stairways shall be designed so that water will not accumulate on walking surfaces.

(10) RAMP SLOPES. Substitute the following wording for the requirements in IBC section 1003.3.4.1: Ramps used as part of a means of egress shall have a running slope not steeper than one unit vertical in 12 units horizontal (8-percent slope). The slope of other pedestrian ramps shall not be steeper than one unit vertical in eight units horizontal (12.5-percent slope).

(11) OUTDOOR RAMPS. Substitute the following wording for the requirements in IBC section 1003.3.4.6.2: Outdoor ramps and outdoor approaches to ramps shall be designed so that water will not accumulate on walking surfaces.

SECTION 56. Comm 62.1004 is created to read:

Comm 62.1004 Exit access. (1) EGRESS THROUGH INTERVENING SPACES. This is an additional department exception to the requirements in IBC section 1004.2.3: Means of egress are not prohibited through stockrooms in Group M occupancies, when all of the following are met:

- (a) The stock is of the same hazard classification as that found in the main retail area.
- (b) Not more than 50 percent of the exit access is through the stockroom.

(c) The stockroom is not subject to locking from the egress side.

(d) There is a demarcated, minimum 44-inch-wide aisle leading directly from the retail area to the exit, without obstructions.

(2) CORRIDOR CONTINUITY. This is an additional department exception to the requirements in IBC section 1004.3.2.5: Other spaces or rooms constructed as required for corridors, and that are adjacent to a fire-resistance-rated corridor, shall not be construed as intervening rooms; and may be open to the corridor when all of the following are satisfied:

(a) The spaces are not occupied for hazardous uses.

(b) The spaces are not occupied for the incidental uses listed in IBC Table 302.1.1.

(c) The spaces are arranged so as to not obstruct access to the required exits.

(3) OUTDOOR BALCONIES. Substitute the following wording for the requirements, but not the exception, in IBC section 1004.3.3: Balconies used for egress purposes shall conform to the same requirements as corridors for width, headroom, dead ends and projections.

SECTION 57. Comm 62.1005 and (title) are renumbered Comm 62.1005 (2) and (title).

SECTION 58. Comm 62.1005 (title) and (1) are created to read:

Comm 62.1005 (title) Exits.

(1) MINIMUM NUMBER OF EXITS. Substitute the following wording for the requirements in IBC section 1005.2.1 and Table 1005.2.1: All rooms and spaces within each story shall be provided with and have access to the minimum number of approved independent exits as required by IBC Table 1005.2.1 based on the occupant load of the story, except as modified in IBC section 1004.2.1 or 1005.2.2. For the purposes of IBC chapter 10, occupied roofs shall be provided with exits as required for stories. The required number of exits from any story, basement or individual space shall be maintained until arrival at grade or the public way.

**TABLE 1005.2.1
MINIMUM NUMBER OF EXITS FOR
OCCUPANT LOAD**

OCCUPANT LOAD (persons per story)	MINIMUM NUMBER OF EXITS (per story)
1-500	2
501-1,000	3
More than 1,000	4

SECTION 59. Comm 62.1007 and 62.1009 are created to read:

Comm 62.1007 Refrigerated spaces. Substitute the following wording for the exception in IBC section 1007.3. Where using refrigerants in quantities limited to the amounts based on the volume set forth in ch. Comm 45.

Comm 62.1009 Emergency escape and rescue. (1) Substitute the following wording for the requirements, but not the exceptions, in IBC section 1009.1: In addition to the means of egress required by IBC chapter 10, provisions shall be made for emergency escape and rescue in Group R and Group I-1 occupancies. Basements and sleeping rooms below the fourth story above grade plane shall have at least one exterior emergency escape and rescue opening in accordance with IBC section 1009. Where basements contain one or more sleeping rooms, emergency egress and rescue openings shall be required in each sleeping room, but may not be required in adjoining areas of the basement. Such opening shall open directly into a public street, public alley, yard or court.

(2) These are additional department exceptions to the requirements in IBC section 1009.1:

(a) High-rise buildings in accordance with IBC section 403.

(b) Emergency escape and rescue openings are not required from basements or sleeping rooms which have an exit door or exit access door that opens directly into a public street, public alley, yard, egress court or to an exterior exit balcony that opens to a public street, public alley, yard or egress court.

(c) Basements without habitable spaces and having no more than 200 square feet in floor area are not be required to have emergency escape windows.

SECTION 60. Comm 62.1103 (2) (d) is repealed.

SECTION 61. Comm 62.1103 (2) (e) to (L) are renumbered Comm 62.1103 (2) (d) to (k), and Comm 62.1103 (2) (g), as renumbered, is amended to read:

Comm 62.1103 (2) (g) *Limited access spaces.* 1. Storage spaces that do not include permanent workstations, are infrequently accessed by employees, and are not open to the general public are not required to be accessible.

2. Nonoccupiable spaces accessed only by ladders, catwalks, crawl spaces, freight elevators or very narrow passageways are not required to be accessible.

SECTION 62. Comm 62.1104 (3) (b) is amended to read:

Comm 62.1104 (3) (b) *Exceptions.* 1. In assembly areas with fixed seating that are required to be accessible, an accessible route shall not be required to serve fixed seating where wheelchair spaces or designated aisle seats required to be on an accessible route are not provided.

2. A single accessible route is permitted to pass through a kitchen or storage room in an accessible dwelling unit.

SECTION 63. Comm 62.1104 (3) (c) is created to read:

Comm 62.1104 (3) (c) *Press boxes.* 1. Except as specified in subd. 2., press boxes in assembly areas shall be on an accessible route.

2. a. An accessible route shall not be required to press boxes in bleachers that have points of entry at only one level, provided that the aggregate area of all press boxes is 500 square feet maximum.

b. An accessible route shall not be required to free-standing press boxes that are elevated above grade 12 feet minimum provided that the aggregate area of all press boxes is 500 square feet maximum.

SECTION 64. Comm 62.1104 (4) (b) is repealed and recreated to read:

Comm 62.1104 (4) (b) *Exceptions.* 1. An accessible route is not required to stories and mezzanines above and below accessible levels that have an aggregate area of not more than 3,000 square feet. This exception does not apply to any of the following:

a. Multiple tenant facilities of Group M occupancies containing 5 or more tenant spaces.

b. Levels containing offices of health care providers (Group B or Group I).

c. Passenger transportation facilities and airports (Group A-3 or Group B).

d. Government-owned or -operated facilities that are outside the scope of sub. (3) (c).

2. In Group A, I, R and S occupancies, levels that do not contain accessible elements or other spaces required by ss. Comm 62.1107 and 62.1108 are not required to be served by an accessible route from an accessible level.

3. In air traffic control towers, an accessible route is not required to serve the cab and the floor immediately below the cab.

4. Where a 2-story building or facility has one story with an occupant load of 5 or fewer persons that does not contain public-use space, that story shall not be required to be connected by an accessible route to the story above or below.

5. An accessible route is not required to levels located above or below the accessible level in government-owned or -operated buildings or facilities which are less than 3 stories and which are not open to the general public, if the floor level above or below the accessible level has a capacity of no more than 5 persons and is less than 500 square feet in area. The floor level above or below the accessible level that is less than 500 square feet shall have a sign stating a maximum capacity of 5 persons, and the sign shall be placed in a conspicuous location at the main entrance to the floor level.

[NOTE TO REVISOR: In ss. Comm 62.1106 to 62.1109, delete “Comm” from all table titles and from all text references to those tables, to be consistent with all other tables in Comm 61 to 65.]

SECTION 65. Comm 62.1106 (1) is amended to read:

Comm 62.1106 (1) REQUIRED. Where parking is provided, accessible parking spaces complying with ICC/ANSI A117.1 shall be provided in compliance with Table 62.1106 except as required by subs. (2) ~~and~~ (3) and (3m). The number of accessible parking spaces shall be determined based on the total number of parking spaces provided for the facility.

SECTION 66. Comm 62.1106 (3m) is created to read:

Comm 62.1106 (3m) HOSPITAL OUTPATIENT FACILITIES. Ten percent of patient and visitor parking spaces provided to serve hospital outpatient facilities shall be accessible.

SECTION 67. Comm 62.1106 (5) (a) is amended to read:

Comm 62.1106 (5) (a) *General.* Except as specified in par. (b), accessible parking spaces shall be located on the shortest accessible route of travel from adjacent parking to an accessible building entrance. Accessible parking spaces shall be dispersed among the various types of parking facilities provided. In parking facilities that do not serve a particular building, accessible parking spaces shall be located on the shortest route to an accessible pedestrian entrance to the parking facility. Where buildings have multiple accessible entrances with adjacent parking, accessible parking spaces shall be dispersed and located near the accessible entrances.

SECTION 68. Comm 62.1106 (5) (b) is repealed and recreated to read:

Comm 62.1106 (5) (b) *Exceptions*. 1. In multilevel parking structures, van-accessible parking spaces are permitted on one level.

2. Parking spaces shall be permitted to be located in some but not all of the various types of parking facilities if substantially equivalent or greater accessibility is provided in terms of distance from an accessible entrance or entrances, parking fee, and user convenience.

SECTION 69. Comm 62.1107 (5) (c) (intro.) and (e) are amended to read:

Comm 62.1107 (5) (c) (intro.) *Group I-2 hospitals*. ~~In general~~ General purpose hospitals, psychiatric facilities, detoxification facilities and residential care or assisted living facilities of Group I-2; shall be provided with accessible features in accordance with all of the following:

(e) *Group I-3*. In occupancies in Group I-3, at least ~~5~~ 2%, but not less than one, of the dwelling units and sleeping units shall be accessible units.

SECTION 70. Comm 62.1108 (2m) is created to read:

Comm 62.1108 (2m) PERFORMANCE AREAS. An accessible route shall directly connect the performance area to the assembly seating area, where a circulation path directly connects a performance area to an assembly seating area. An accessible route shall be provided from performance areas to ancillary areas or facilities used by performers.

SECTION 71. Comm 62.1109 (8) (d) (title) and (d) are amended to read:

Comm 62.1109 (8) (d) (title) *Coat hooks and ~~folding~~ shelves*. Where coat hooks or ~~folding~~ shelves are provided in inaccessible toilet rooms, toilet compartments, or in dressing, fitting or locker rooms, at least one of each type shall be provided in accessible toilet rooms, toilet compartments, and dressing, fitting and locker rooms.

SECTION 72. Comm 62.1109 (12) (b) 1. is renumbered Comm 62.1109 (12) (b) and amended to read:

Comm 62.1109 (12) (b) *Check-out aisles*. ~~Except as specified in subd. 2., where~~ Where check-out aisles are provided, accessible check-out aisles shall be provided in accordance with Table ~~Comm~~ 62.1109. Where check-out aisles serve different functions, at least one accessible check-out aisle shall be provided for each function. Where check-out aisles serve different functions, accessible check-out aisles shall be provided in accordance with Table 62.1109 for each function. Where check-out aisles are dispersed throughout the building or facility, accessible check-out aisles shall also be dispersed. Traffic control devices, security devices and turnstiles located in accessible check-out aisles or lanes shall be accessible.

SECTION 73. Comm 62.1109 (12) (b) 2. and (15) are repealed.

SECTION 74. Comm 62.1403 (1) (title), (1), and (2) (b) are amended to read:

Comm 62.1403 (1) (title) AIR BARRIERS RETARDERS. (a) Except as specified in sub. (2), a durable air retarder shall be provided when a building component or assembly separates a building's interior conditioned space from ~~an exterior wall system~~ the outdoors.

(b) The air retarder shall be located on the interior side of the ~~wall~~ insulation.

(2) (b) In monolithic portions of plain or reinforced concrete exterior walls that are designed and constructed in accordance with IBC chapter 19.

SECTION 75. Comm 62.1405 is created to read:

Comm 62.1405 Wall coverings. (1) EXTERIOR WINDOWS AND DOORS. The requirements in IBC section 1405.12 are not included as part of this code.

(2) POLYSTYRENE SHEATHING. This is a department rule in addition to the requirements in IBC section 1405.13.1: (a) Extruded polystyrene sheathing having all of the characteristics in par. (b) may be utilized as the required backing material for vinyl siding when used in accordance with all of the limitations in par. (c).

(b) 1. Extruded, rigid, and cellular.

2. Type IV, as specified in ASTM C 578.

3. Thickness of at least one inch.

(c) 1. On-center stud spacing of 16 inches or less.

2. Mean roof height of 40 feet or less.

3. Wind exposure category of A, B, or C, as established in IBC section 1609.4; and the building is not sited on the upper half of an isolated hill or escarpment meeting conditions 1, 2, and 3 in IBC section 1609.6.1.

SECTION 76. Comm 62.1407 (4) is created to read:

Comm 62.1407 (4) LABELING. The requirements in IBC section 1407.12 are not included as part of this code.

SECTION 77. Comm 62.1505 is renumbered Comm 62.1505 (1).

SECTION 78. Comm 62.1505 (2) is created to read:

Comm 62.1505 (2) Substitute the following wording for footnote c in IBC Table 1505.1: Buildings that are not more than 2 stories in height and having not more than 6,000 square feet of projected roof area and where there is a minimum 10-foot fire-separation distance from the leading edge of the roof to a lot line on all sides of the building, except for street fronts or public ways, shall be permitted to have roofs of No. 1 cedar or redwood shakes and No. 1 shingles.

SECTION 79. Comm 62.1507 is created to read:

Comm 62.1507 Roof slope. (1) This is a department exception to the requirements in IBC section 1507.12.1: Thermoset single-ply membrane roofs may have a design slope of less than 2 percent, if permitted by the manufacturer's literature or listing criteria.

(2) This is a department exception to the requirements in IBC section 1507.13.1: Thermoplastic single-ply membrane roofs may have a design slope of less than 2 percent, if permitted by the manufacturer's literature or listing criteria.

(3) This is a department exception to the requirements in IBC section 1507.14.1: Sprayed polyurethane foam roofs may have a design slope of less than 2 percent, if permitted by the manufacturer's literature or listing criteria.

(4) This is a department exception to the requirements in IBC section 1507.15.1: Liquid-applied roofs may have a design slope of less than 2 percent, if permitted by the manufacturer's literature or listing criteria.

SECTION 80. Comm 62.1603 (1) and (2) are renumbered Comm 62.1603 (3) and (4).

SECTION 81. Comm 62.1603 (1) and (2) are created to read:

Comm 62.1603 (1) ROOF SNOW LOAD. Substitute the following wording for the requirements in IBC section 1603.1.3: The ground snow load, P_g , shall be indicated. In areas where the ground snow load, P_g , exceeds 10 pounds per square foot, the following additional information shall also be provided, regardless of whether snow loads govern the design of the roof:

1. Flat-roof snow load, P_f
2. Snow exposure factor, C_e .

3. Snow load importance factor, I .
4. Thermal factor, C_t .
5. Any sloped-roof snow load, P_s .
6. Any unbalanced, drift or sliding snow loads.

(2) SPECIAL INSPECTIONS. The requirements in IBC section 1603.1.8 are not included as part of this code.

SECTION 82. Comm 62.1604 and (title) are renumbered Comm 62.1604 (1) and (title).

SECTION 83. Comm 62.1604 (title) and (2) are created to read:

Comm 62.1604 (title) Alternate evaluations.

(2) ALTERNATE APPROVALS. Substitute the following wording for the requirements in IBC section 1604.7: Materials and methods of construction that are not capable of being designed by approved engineering analysis or that do not comply with the applicable material design standards listed in Chapter 35 shall be submitted for approval in accordance with subch. V of ch. Comm 61.

SECTION 84. Comm 62.1607 and (title) are renumbered Comm 62.1607 (3) and (title).

SECTION 85. Comm 62.1607 (title), (1), (2), (4), and (5) are created to read:

Comm 62.1607 (title) Live loads. (1) RESIDENTIAL FLOOR LOADS. Substitute the following wording and live loads for the requirements in lines 16 and 27 of IBC Table 1607.1:

TABLE 1607.1
MINIMUM UNIFORMLY DISTRIBUTED LIVE LOADS AND MINIMUM
CONCENTRATED LIVE LOADS^g
(Partial Table)

OCCUPANCY OR USE	UNIFORM (psf)	CONCENTRATED (lbs.)
16. Garages (passenger vehicles only) Trucks and buses	40	Note a See Section 1607.6
27. Residential Three or more attached dwelling units not more than 3 stories high, with separate means of egress for each unit Uninhabitable attics without storage Uninhabitable attics with storage All other areas except balconies Hotels and Group R-2 Private rooms and corridors serving them Public rooms and corridors serving them	 5 20 40 40 100	 —

(2) CONCENTRATED LOADS. Substitute the following wording for the requirements in IBC section 1607.4: Floors and other similar surfaces shall be designed to support the uniformly distributed live loads prescribed in IBC section 1607.3 or the concentrated load, in pounds, given in IBC Table 1607.1, whichever produces the greater load effects. Unless otherwise specified, the indicated concentration shall be assumed to be uniformly distributed over an area 2.5 feet by 2.5 feet and shall be located so as to produce the maximum load effects in the structural members.

(4) ALTERNATE FLOOR LIVE LOAD REDUCTION. Substitute the following wording for provision 3 in IBC section 1607.9.2:

(a) For live loads not exceeding 100 pounds per square foot, the design live load for any structural member supporting 150 square feet or more is permitted to be reduced in accordance with the following equation:

$$R = r (A - 150)$$

(b) The reduction in par. (a) may not exceed the smallest of any of the following:

1. 40 percent for horizontal members.
2. 10 pounds per square foot for horizontal members in passenger-vehicle garages.
3. 60 percent for vertical members.
4. R as determined by the following equation:

$$R = 23.1 (1 + D/L_o)$$

(c) As used in pars. (a) and (b):

A = Area of floor or roof supported by the member, square feet.

D = Dead load per square foot of area supported.

Lo = Unreduced live load per square foot of area supported.

R = Reduction in percent.

r = Rate of reduction equal to 0.08 percent for floors.

(5) OVERHANGING EAVES. The requirements in IBC section 1607.11.2.5 are not included as part of this code.

SECTION 86. Comm 62.1608 (3) and (4) are created to read:

Comm 62.1608 (3) UNBALANCED SNOW LOADS. This is a department alternative to the requirements in IBC section 1608.6: Unbalanced snow loads on a hip or gable roof may be calculated in accordance with the following equation:

$$S = S_s(I_s)(C_b C_w C_s C_a)$$

Where:

S = Alternate unbalanced roof snow load

S_s = Ground snow load from IBC Figure 1608.2 or Figure 62.16–1

I_s = Importance factor from IBC Table 1604.5

C_b = Basic roof snow load factor of 0.8

C_w = Wind exposure factor of 1.0

C_s = Slope factor; see Tables 62.1608–1 and 62.1608–2

C_a = Accumulation factor; see Table 62.1608–3

Table 62.1608–1

Non-Slippery Roof^a

Roof Slope, α	Factor, C_s
$\alpha \leq 30^\circ$	1.0
$30^\circ < \alpha \leq 70^\circ$	$(70^\circ - \alpha) / 40^\circ$
$70^\circ < \alpha$	0

^a Such as with shingles.

Table 62.1608–2

Unobstructed Slippery Roof^a

Roof Slope, α	Factor, C_s
$\alpha \leq 15^\circ$	1.0
$15^\circ < \alpha \leq 60^\circ$	$(60^\circ - \alpha) / 45^\circ$
$60^\circ < \alpha$	0

^a Where snow and ice can slide completely off, such as with steel.

Table 62.1608–3
Accumulation Factor

Roof Slope, α	Factor, C_a
$\alpha \leq 15^\circ$	N/A. Analysis for balanced loading only.
$15^\circ < \alpha \leq 20^\circ$	$0.25 + \alpha / 20^\circ$
$20^\circ < \alpha \leq 90^\circ$	1.25

(4) EXISTING ROOFS. These are department rules in addition to the requirements in IBC sections 1608.7 and 1608.9:

(a) *Buildings on the same property.* 1. Where an existing roof, regardless of the date of its construction, is horizontally within 15 feet of a proposed, taller structure on the same property, IBC sections 1608.7 and 1608.9 or an alternate recognized engineering method shall be applied to the existing roof, to address any drifting or sliding of snow onto the existing roof, as caused by the taller structure.

2. Where an analysis under subd. 1 shows that an existing roof or corresponding supporting elements will not be adequate to support the additional snow load caused by the taller structure, the existing roof or supporting elements shall be strengthened to support those loads, in accordance with this code.

(b) *Buildings on adjoining properties.* Where an existing roof, regardless of the date of its construction, is horizontally within 15 feet of a proposed, taller structure on an adjoining property, the owner of the proposed structure shall notify the adjoining owner of the potential for increased structural loads on the existing roof, due to sliding or drifting of snow, as caused by the taller structure.

SECTION 87. Comm 62.1611 is created to read:

Comm 62.1611 Roof drains. This is a department informational note to be used under IBC section 1611.1:

Note: See ch. Comm 82 for requirements to not connect a secondary roof-drain system to a primary roof-drain system, and to discharge a secondary roof-drain system to the ground surface.

SECTION 88. Comm 62.1614 (intro.), (1) (intro.) and (a) to (c), and (2) are renumbered Comm 62.1614 (1) (intro.), (a) (intro.) and 1. to 3., and (b).

SECTION 89. Comm 62.1614 (2) is created to read:

Comm 62.1614 (2) The requirements in IBC section 1614.4 are not included as part of this code.

SECTION 90. Comm 62.1616 and 62.1617 are created to read:

Comm 62.1616 Seismic design category. This is a department exception to the requirements in IBC section 1616.3: The seismic design category is permitted to be determined from IBC Table 1616.3(1) alone when all of the following apply:

(1) The approximate fundamental period of the structure, T_a , in each of the 2 orthogonal directions determined in accordance with IBC section 1617.4.2.1, is less than $0.8 T_s$ determined in accordance with IBC section 1615.1.4.

(2) IBC Equation 16-35 is used to determine the seismic response coefficient, C_s .

(3) The diaphragms are rigid as defined in IBC section 1602.

Comm 62.1617 Deletion. Exception 1 in IBC section 1617.6.3.1 is not included as part of this code.

SECTION 91. Comm 62.1621 and (title) are renumbered Comm 62.1621 (3) and (title).

SECTION 92. Comm 62.1621 (title), (1), and (2) are created to read:

Comm 62.1621 (title) Component design. (1) SPECIAL INSPECTION AND TESTING. The requirements in IBC section 1621.1.8 are not included as part of this code.

(2) SUSPENDED CEILINGS. Item 8 in IBC section 1621.2.5.2.2 is not included as part of this code.

SECTION 93. Comm 62.1805 and (title) are renumbered Comm 64.1805 (1) and (title).

SECTION 94. Comm 62.1805 (title) and (2) are created to read:

Comm 62.1805 (title) Footings and foundations.

(2) SHALLOW POST FOUNDATIONS. This is a department alternative to the requirements in IBC section 1805.7.2: The criteria in ANSI/ASAE EP486.1 may be used in lieu of the design criteria in IBC section 1805.7.2, except the following limitations apply:

(a) The following vertical pressures may be used for the unspecified values in Table 1:

1. Class 3 material: 3000 pounds per square foot for firm soils.
2. Class 4 material: 2000 pounds per square foot for firm soils.
3. Class 5 material: 1500 pounds per square foot for medium soils.

(b) The allowable increases set forth in footnote 4 of Table 1 for soil classes 3, 4, and 5 may not exceed the following:

1. Class 3 material: 6000 pounds per square foot for firm soils and 4000 pounds per square foot for loose soils.
2. Class 4 material: 4000 pounds per square foot for firm soils and 2000 pounds per square foot for loose soils.
3. Class 5 material: 2000 pounds per square foot for medium soils and 1500 pounds per square foot for soft soils.

(c) The 20 percent increase allowed by footnote 4 of Table 1 shall be applied to the summation of the width and depth portions that exceed one foot.

Note: For example, a 2-foot wide foundation that is 4.5 feet deep would have a multiplier of 1.9. $[1.0 + 0.2((2' \text{ width} - 1') + (4.5' \text{ depth} - 1')) = 1.9]$.

(d) The increased vertical pressure values obtained under par. (c) may not exceed those listed in par. (b).

SECTION 95. Comm 62.1807 (3) (e) is amended to read:

Comm 62.1807 (3) (e) If one or more static load tests are performed, in addition to ~~the~~ a static analysis and tests described above, a minimum factor of safety of 2.0 shall be applied to the ultimate allowable capacity.

SECTION 96. Comm 62.1807 (6) is created to read:

Comm 62.1807 (6) SPECIAL INSPECTION. The requirements in IBC section 1807.2.22 are not included as part of this code.

SECTION 97. Comm 62.1901, 62.1903, and 62.1910 are created to read:

Comm 62.1901 Special inspections of concrete. The requirements in IBC section 1901.5 are not included as part of this code.

Comm 62.1903 Specifications for concrete. Substitute the following wording for the requirements in IBC section 1903.1: Materials used to produce concrete and testing thereof shall comply with the applicable standards listed in ACI 318 and IBC section 1903. Tests of concrete and the materials used in concrete shall be in accordance with ACI 318 section 3.8.

Comm 62.1910 Deletions. (1) The exception in IBC section 1910.4.4.1 is not included as part of this code.

(2) The exception in the introductory paragraph of IBC section 1910.4.4.2 is not included as part of this code.

(3) Exception 1 in IBC section 1910.4.4.2 is not included as part of this code.

SECTION 98. Comm 62.2209 is created to read:

Comm 62.2209 Bolts. Substitute the following wording for the requirements in IBC section 2209.1: The design, installation and inspection of bolts shall be in accordance with the requirements of the specifications listed in IBC sections 2204, 2205, and 2206.

SECTION 99. Comm 62.2303 and (title) are renumbered Comm 62.2303 (2) and (title).

SECTION 100. Comm 62.2303 (title) and (1) are created to read:

Comm 62.2303 (title) Minimum standards and quality. (1) LABELING. Substitute the following wording for the requirements in IBC section 2303.2.1: Fire-retardant-treated lumber and wood structural panels shall bear the identification mark of an approved agency. Such identification marks shall indicate conformance with appropriate standards in accordance with IBC sections 2303.2.2 through 2303.2.5.

SECTION 101. Comm 62.2306, 62.2308, 62.2403 Note, 62.2406, 62.2407, and 62.2408 are created to read:

Comm 62.2306 Shallow post foundation design. This is a department rule in addition to the requirements in IBC section 2306.1: Standard ANSI/ASAE EP486.1 may be used in the structural analysis and construction of wood elements in post frame building foundations.

Comm 62.2308 Conventional light-frame construction. (1) DELETIONS. (a) The exception in IBC section 2308.11.1 is not included as part of this code.

(b) The exception in IBC section 2308.12.1 is not included as part of this code.

(c) Footnote c in IBC Table 2308.12.4 is not included as part of this code.

(2) SUBSTITUTION. Substitute the following wording for the wall-bracing lengths specified in IBC Table 2308.12.4: Conventional construction not permitted; conformance with IBC section 2301.2.1 or 2301.2.2 is required.

Comm 62.2403 Note: See ch. Comm 18 [ASME A17.1] for additional glass and glazing requirements relating to elevators. Those requirements include a prohibition against elevator hoistway windows that give a false appearance of a floor level; and a requirement that all glass in an elevator hoistway be laminated safety glazing conforming to IBC section 2406.1.

Comm 62.2406 Wired glass. Substitute the following wording for exception 1 in IBC section 2406.1: In other than Group E, wired glass installed in fire doors, fire windows and view panels in fire-resistant walls shall be permitted to comply with ANSI Z97.1.

Comm 62.2407 Glass in handrails and guards. Substitute the following wording for the requirements in IBC section 2407.1: Glass used as structural balustrade panels in railings shall be constructed of either single fully tempered glass, laminated fully tempered glass or laminated heat-strengthened glass. Glazing in railing in-fill panels shall be of an approved safety glazing material that conforms to the provisions of IBC section 2406.1. For all glazing types, the minimum nominal thickness shall be ¼ inch. Fully tempered glass and laminated glass shall comply with Category II of CPSC 16 CFR part 1201.

Comm 62.2408 Glazing in athletic facilities. (1) GENERAL. Substitute the following wording for the requirements in IBC section 2408.1: Glazing in athletic facilities and similar uses subject to impact loads, which forms whole or partial wall sections or which is used as a door or part of a door, shall comply with IBC section 2408.2 and sub. (3).

(2) RACQUETBALL AND SQUASH COURTS. Substitute the following wording for the introductory paragraph in IBC section 2408.2: Test methods and loads for individual glazed areas in racquetball and squash courts subject to impact loads shall conform to those of CPSC 16 CFR part 1201, with impacts being applied at a height of 59 inches above the playing surface to an actual or simulated glass wall installation with fixtures, fittings and methods of assembly identical to those used in practice.

(3) GYMNASIUMS AND BASKETBALL COURTS. This is a department rule in addition to the requirements in IBC section 2408.2: Glazing in multipurpose gymnasiums, basketball courts and similar athletic facilities subject to human impact loads shall comply with Category II of CPSC 16 CFR part 1201.

SECTION 102. Comm 62.2900 (2) is amended to read:

Comm 62.2900 (2) SERVICE SINK. In every building where a service sink is required by IBC Table 2902.1, the area where the service sink shall be is located ~~in a service closet or room that is~~ shall be provided with the supplies necessary for the sanitary upkeep of the toilet rooms.

SECTION 103. Comm 62.2900 (4) (b) 3. is created to read:

Comm 62.2900 (4) (b) 3. Compartments are not required for water closets in prison or jail cells.

SECTION 104. Comm 62.2902 (1) (a) is repealed and recreated to read:

Comm 62.2902 (1) (a) *Exceptions.* These are department exceptions to the requirements in IBC section 2902.1:

1. Where more than one water closet is required for males, urinals may be substituted for up to 50 percent of the required number of water closets.

2. Where water is served in restaurants or where other acceptable arrangements are made to provide drinking water, drinking fountains are not required.

3. For child day care facilities, bathtubs or showers are not required where other personal hygiene washing arrangements are provided that satisfy the licensing requirements of the Wisconsin department of health and family services.

4. For day nurseries and child day care facilities, children under the age of 30 months need not be considered as a part of the occupant load used to determine the minimum number of water closets.

SECTION 105. Comm 62.2902 (1) (c) 1. and 2. are amended to read:

Comm 62.2902 (1) (c) 1. Substitute the following wording for the water closets heading in IBC Table 2902.1: Water closets^g [see s. Comm 62.2902 (1) (a) 1. for urinals].

2. Substitute the following wording for the drinking fountains heading in IBC Table 2902.1: Drinking fountains (see ~~the International Plumbing Code~~ s. Comm 62.2902 (1) (a) 2.).

SECTION 106. Comm 62.2902 (1) (c) 3. and 4. are renumbered Comm 62.2902 (1) (c) 4. and 5.

SECTION 107. Comm 62.2902 (1) (c) 3. and (d) are created to read:

Comm 62.2902 (1) (c) 3. In IBC Table 2902.1, substitute the following wording for the required minimum number of water closets for females, in coliseums and arenas having less than 3000 seats: 1 per 37.

(d) *Addition to IBC Table 2902.1* This is an additional department footnote for IBC Table 2902.1: Footnote g. Wherever more than 500 people congregate and more than the required minimum number of water closets or urinals are provided for males, twice as many of those additional toilet facilities shall be provided for females.

SECTION 108. Comm 62.2902 (4) to (7) are renumbered Comm 62.2902 (6) to (9).

SECTION 109. Comm 62.2902 (4) and (5) are created to read:

Comm 62.2902 (4) MERCANTILE OCCUPANCIES. This is an additional department exception to the requirements in IBC section 2902.2: Separate facilities shall not be required in mercantile occupancies in which the maximum occupant load is 50 or less

(5) DISTRIBUTION OF PLUMBING FACILITIES AND NUMBER OF OCCUPANTS OF EACH SEX. Substitute the following wording for the requirements in IBC section 2902.3: Except as otherwise specified in IBC Table 2902.1, the required water closets, lavatories, and showers or bathtubs shall be distributed equally between the sexes based on the percentage of each sex anticipated in the occupant load. The occupant load shall be composed of 50 percent of each sex, unless statistical data approved by the code official indicate a different distribution of the sexes.

SECTION 110. Comm 62.2902 (8) (title) is amended to read:

Comm 62.2902 (8) (title) BUSINESS AND MERCANTILE TOILET ROOMS.

SECTION 111. Comm 62.3004 (2) (title) and (intro.) are amended to read:

Comm 62.3004 (2) (title) PLUMBING AND MECHANICAL SYSTEMS. (intro.) Substitute the following wording for the requirements and the exception in IBC section 3004.5:

SECTION 111m. Comm 62.3006 (1) Note is amended to read:

Comm 62.3006 (1) Note: See ch. Comm 18 for additional machine room access requirements. Those requirements include a prohibition against accessing an elevator machine room through a toilet room, sleeping room or private space; and a prohibition against accessing other spaces in a building through an elevator machine room.

SECTION 112. Comm 62.3006 (3) is renumbered Comm 62.3006 (4).

SECTION 113. Comm 62.3006 (3) is created to read:

Comm 62.3006 (3) SHUNT TRIP. Substitute the following wording for the requirements in IBC section 3006.5: Where elevator hoistways or elevator machine rooms containing elevator control equipment are protected with automatic sprinklers, a means installed in accordance with NFPA 72, section 6.15.4, Elevator Shutdown, shall be provided to disconnect automatically the main line power supply to the affected elevator prior to the application of water. This means shall not be self-resetting. The activation of sprinklers outside the hoistway or machine room shall not disconnect the main line power supply.

SECTION 114. Comm 62.3408 (5) is repealed and recreated to read:

Comm 62.3408 (5) SCOPING FOR ALTERATIONS. (a) *Entrances.* These are department rules in addition to the requirements in IBC section 3408.7: 1. Except as specified in subd. 2., accessible entrances shall be provided in accordance with s. Comm 62.1105.

2. Where an alteration includes alterations to an entrance, and the building or facility has an accessible entrance, the altered entrance is not required to be accessible, unless required by IBC section 3408.6. Signs complying with s. Comm 62.1110 shall be provided.

(b) *Platform lifts.* Substitute the following wording for the requirements in IBC section 3408.7.2: Platform lifts complying with ICC/ANSI A117.1 and ch. Comm 18 shall be permitted as a component of an accessible route.

(c) *Stairs and escalators in existing buildings.* Substitute the following wording for the requirements in IBC section 3408.7.3: In alterations where an escalator or stair is added where none existed previously, an accessible route shall be provided in accordance with ss. Comm 62.1104 (4) and (5).

(d) *Assembly areas.* Substitute the following wording for the requirements in IBC section 3408.7.7: Seating shall adjoin an accessible route that also serves as a means of egress. Where it is technically infeasible to disperse accessible seating throughout an altered assembly area, the minimum required number of wheelchair space clusters shall be one-half of that required by s. Comm 62.1108 (2) (b) 1. In existing assembly seating areas with a mezzanine, where the main level provides three-fourths or more of the total seating capacity, wheelchair space clusters are permitted to be dispersed on the main level. Each accessible seating area shall have provisions for companion seating.

(e) *Dwelling or sleeping units.* Substitute the following wording for the requirements in IBC section 3408.7.8: Where I-1, I-2, I-3, R-1, R-2, or R-4 dwelling or sleeping units are being altered or added, the requirements of s. Comm 62.1107 for accessible rooms and IBC chapter 9 for accessible alarms apply only to the quantity of spaces being altered or added.

SECTION 115. Comm 62.3500 is repealed and recreated to read:

Comm 62.3500 Referenced standards. (1) INTRODUCTION. Substitute the following wording for the introductory paragraph in IBC chapter 35: This chapter lists the standards that are referenced in various sections of this document. The standards are listed herein by the promulgating agency of the standard, the standard identification, the effective date and title, and the section or sections of this document that reference the standard. The application of the referenced standards shall be as specified in IBC section 102.4.

(2) SUBSTITUTIONS. (a) *AF&PA standard.* Substitute the following AF&PA standard for the corresponding standard listed in IBC chapter 35: NDS-01.

(b) *NFPA standards.* Substitute the following NFPA standards for the corresponding standards listed in IBC chapter 35: NFPA 11-2002, 12-2000, 13-2002, 13R-2002, 17-2002, 17A-2002, 30-2000, 33-2000, 34-2000, and 72-2002.

(3) ADDITIONS. This is a department rule in addition to the requirements in IBC chapter 35: The following standards are hereby incorporated by reference into this code:

(a) ANSI/ASAE EP486.1 OCT00, Shallow Post Foundation Design.

(b) ASTM C 578-1995, Standard Specification for Rigid Cellular Polystyrene Thermal Insulation.

(c) NFPA 30A-2000, Code for Motor Fuel Dispensing Facilities and Repair Garages.

(d) NFPA 45-2000, Standard on Fire Protection for Laboratories Using Chemicals.

(e) NFPA 750-1996, Standard on Water Mist Fire Protection Systems.

Note: ANSI/ASAE standards may be purchased from the American Society of Agricultural Engineers, 2950 Niles Road, St. Joseph, MI 49085-9659.

ASTM standards may be purchased from ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959

NFPA standards may be purchased from the National Fire Protection Association, One Batterymarch Park, P.O. Box 9101, Quincy, MA 02269-9101.

Copies of the standards adopted under this section are on file in the offices of the department, the secretary of state, and the revisor of statutes.

SECTION 116. Comm 62.3600 (1) is amended to read:

Comm 62.3600 Appendices. (1) EXCLUSIONS. The provisions in IBC Appendices A, B, ~~and D~~, and F to J are not included as part of this code.

SECTION 117. Comm 63.0003 (3) (c) 1. and 2. are repealed and recreated to read:

Comm 63.0003 (3) (c) 1. a. When an alteration of an interior lighting system increases the connected interior lighting load of the building, the entire interior lighting system is required to comply with ss. Comm 63.1044 to 63.1049.

b. Where an alteration of a building area includes replacement of more than 50 percent of the existing lighting fixtures in the altered area, the portion of the lighting system in the altered area is required to comply with ss. Comm 63.1044 to 63.1049.

2. a. When an alteration of an exterior lighting system increases the connected exterior lighting load of the building, the entire exterior lighting system is required to comply with ss. Comm 63.1041 to 63.1043.

b. Where an alteration of an exterior building surface includes replacement of more than 50 percent of the existing lighting fixtures on the altered surface, the portion of the lighting system on the altered surface is required to comply with ss. Comm 63.1041 to 63.1043.

SECTION 118. Comm 63.0202 (2) is repealed and recreated to read:

Comm 63.0202 (2) Substitute the following definitions for the corresponding definitions listed in IECC section 202:

(a) “Approved” has the meaning given in s. Comm 62.0202 (2) (a).

(b) “Multifamily dwelling” has the meaning given in s. Comm 61.04 (4).

SECTION 119. Comm 63.0402 is renumbered Comm 63.0402 (2).

SECTION 120. Comm 63.0402 (1) and (2) (title) are created to read:

Comm 63.0402 (1) ENERGY ANALYSIS. This is a department informational note to be used under IECC section 402.1:

Note: The federal Department of Energy has developed REScheckTM, a computer program that may be used in demonstrating compliance for a residential building which has no more than 3 stories and has 3 or more dwelling units. The REScheck program may be downloaded at <http://www.energycodes.gov/>. When using the program, the applicable code must be defined as the “2000 IECC.” The use of the “Wisconsin” option will apply requirements associated with a 1 or 2 family dwelling, which are more restrictive than those associated with low-rise multifamily buildings.

(2) (title) APPROVED CALCULATION TOOL.

SECTION 121. Comm 63.0502 (3) is repealed and recreated to read:

Comm 63.0502 (3) COMPLIANCE BY PRESCRIPTIVE SPECIFICATION ON AN INDIVIDUAL COMPONENT BASIS. (a) *General.* Substitute the following wording for the requirements in IECC section 502.2.4: For Type A-2 residential buildings with a window area less than or equal to 20 percent, 25 percent, or 30 percent of the gross exterior wall area, the thermal resistance of insulation applied to the opaque building envelope components shall be greater than or equal to the minimum *R*-values, and the thermal transmittance of all fenestration assemblies shall be less than or equal to the maximum *U*-factors shown in IECC Tables 502.2.4(7), 502.2.4(8), or 502.2.4(9), as applicable. IECC sections 502.2.4.1 to 502.2.4.17 shall apply to the use of these tables.

(b) *Floors.* Substitute the following wording for the requirements in IECC section 502.2.4.8: Floor *R*-values shall apply to floors over unconditioned spaces and floors over outside air.

SECTION 122. Comm 63.0503 (2) (title), (a), and (b) are amended to read:

Comm 63.0503 (2) (title) **DISTRIBUTION; SYSTEM, CONSTRUCTION AND INSULATION.** (a) *Hydronic piping insulation.* Substitute the following wording for the requirements and the exceptions in IECC ~~section~~ sections 503.3.3.1 and 503.3.3.2 and IECC Table 503.3.3.1: All system piping shall be thermally insulated in accordance with s. Comm 63.1029 (1) and (2).

(b) *Duct and plenum insulation.* Substitute the following wording for the requirements and the exceptions in IECC section 503.3.3.3: and IECC Table 503.3.3.3: Duct and plenum insulation shall be provided in accordance with s. Comm 63.0803 (2) (f).

SECTION 123. Comm 63.0505 is repealed and recreated to read:

Comm 63.0505 Lighting power budget. Substitute the following informational note for the requirements and the exception in IECC section 505.2:

Note: See ss. Comm 63.1040 to 63.1053 for requirements for lighting systems.

SECTION 124. Comm 63.0605 is created to read:

Comm 63.0605 Electrical power and lighting. (1) ELECTRICAL ENERGY CONSUMPTION. This is a department rule in addition to the requirements in IECC chapter 6: In residential buildings having individual dwelling units, provisions shall be made to determine the electrical energy consumed by each tenant by separately metering individual dwelling units.

(2) LIGHTING POWER BUDGET. This is a department informational note to be used under IECC chapter 6:

Note: See ss. Comm 63.1040 to 63.1053 for requirements for lighting systems.

SECTION 125. Comm 63.0803 (2) (g) is created to read:

Comm 63.0803 (2) (g) *Piping insulation.* Substitute the following wording for the requirements in IECC section 803.2.9: All piping serving as part of a heating or cooling system shall be thermally insulated in accordance with s. Comm 63.1029 (1) and (2).

SECTION 126. Comm 63.0806 is created to read:

Comm 63.0806 Lighting power for the Standard design. Substitute the following wording for the requirements in IECC section 806.4.7: The lighting power for the Standard design shall be the maximum allowed in accordance with s. Comm 63.0805. Where the occupancy of the building is not known, the lighting power density shall be 1.5 watts per square foot.

SECTION 127. Comm 63.1015 (5) (a) and (6) (a) are amended to read:

Comm 63.1015 (5) (a) The U-values for the building roofs, walls and ceilings next to unconditioned spaces, and floors over unconditioned spaces shall be less than or equal to those listed in the appropriate ACP table given in Figures 63.1015–1 to ~~63.1019–4~~ 63.1015–4.

(6) (a) Unheated slab-on-grade floors shall have insulation around the perimeter of the floor with the thermal resistance (R_u) of the insulation as listed in the appropriate ACP table given in Figures ~~63.1019–4~~ 63.1015–1 to ~~63.1019–4~~ 63.1015–4.

SECTION 128. Comm Tables 63.1019–1 and 63.1019–2 are renumbered Comm Tables 63.1019–2 and 63.1019–3.

SECTION 129. Comm Figures 63.1019–1 and 63.1019–2 are renumbered Comm Table 63.1019–1 and Figure 63.1019–1.

SECTION 130. Comm 63.1019 (3) (a) (intro.) and 1. b. are amended to read:

Comm 63.1019 (3) (a) (intro.) *Thermal transmittance of opaque elements.* The thermal transmittance of opaque elements of assemblies shall be determined using a series path procedure with correction for the presence of parallel paths within an element of the envelope assembly such as wall cavities with parallel paths through insulation and studs. An acceptable

procedure shall be used, as specified in ~~Figure~~ Table 63.1019-1. ~~Figure 63.1019-2~~ 63.1019-1 illustrates a typical roof assembly.

1. b. Using the thermal resistance of those roof and wall assemblies listed in Tables ~~63.1019-1~~ 63.1019-2 and ~~63.1019-2~~ 63.1019-3 shall be corrected using the following parallel path correction factor procedure:

Considering the total resistance of the series path:

$$U_i = 1/R_t$$

$$R_t = R_i + R_e$$

where:

R_t = The total resistance of the envelope assembly.

R_i = The resistance of the series elements (for $i = 1$ to n) excluding the parallel path element(s)

R_e = The equivalent resistance of the element containing the parallel path, the value of R_e is:

$$R_e = R\text{-value of insulation} \times F_c$$

The Parallel Path Correction Factors (F_c) may be obtained from tests conducted using procedures listed in s. Comm 63.1018. Parallel Path Correction Factors for some envelope assemblies are listed in Tables ~~63.1019-1~~ 63.1019-2 and ~~63.1019-2~~ 63.1019-3.

SECTION 131. Comm 63.1026 (2) (b) is amended to read:

Comm 63.1026 (2) (b) *Zone controls for comfort heating*. Where used to control comfort heating, zone thermostatic controls shall be capable of being set locally or remotely by adjustment or selection of sensors down to ~~50°F~~ 55°F or lower.

SECTION 132. Comm Table 63.1029 is repealed and recreated to read:

Table 63.1029
Plumbing and HVAC Piping Minimum Insulation (R-value)

Fluid Design Operating Temp. Range, °F	Insulation Conductivity ^a		Nominal Pipe Diameter					
	Conductivity Range Btu in./- (h ft ² °F)	Mean Rating Temp. °F	Runouts ^b up to 2 inches	1 inch and less	1-1/4 to 2 inches	2-1/2 to 4 inches	5 & 6 inches	8 inches & up
Heating systems (Steam, Steam Condensate, and Hot Water)								
Above 350	0.32-0.34	250	R-4.4	R-4.4	R-7.4	R-8.8	R-10.3	R-10.3
251-350	0.29-0.31	200	R-4.8	R-4.8	R-8.1	R-8.1	R-11.3	R-11.3
201-250	0.27-0.30	150	R-3.3	R-3.3	R-5.0	R-6.7	R-6.7	R-11.7
141-200	0.25-0.29	125	R-1.8	R-1.8	R-5.2	R-5.2	R-5.2	R-5.2
105-140	0.24-0.28	100	R-1.8	R-1.8	R-3.6	R-3.6	R-3.6	R-5.4
Domestic and Service Hot Water systems^c								
105 and greater	0.24-0.28	100	R-1.8	R-3.6	R-3.6	R-5.4	R-5.4	R-5.4
Cooling systems (Chilled water, brine, and refrigerant)^d								
40-55	0.23-0.27	75	R-1.9	R-1.9	R-2.8	R-3.7	R-3.7	R-3.7
Below 40	0.23-0.27	75	R-3.7	R-3.7	R-5.6	R-5.6	R-5.6	R-5.6

^a For insulation outside the state conductivity range, the minimum thickness (T) shall be determined as follows: $T = PR [(1+t/PR)^{K/k} - 1]$, where T = minimum insulation thickness for material with conductivity K, in.; PR = actual outside radius of pipe, in.; t = insulation thickness, in.; K = conductivity of alternate material at mean rating temperature indicated for the applicable fluid temperature; and k = the lower value of the conductivity range listed for the applicable fluid temperature.

^b Runouts to individual terminal units not exceeding 12 ft. in length.

^c Applies to recirculating sections of service or domestic hot water systems and first 8 ft. from storage tank for nonrecirculating systems.

^d The required minimum thickness does not consider water vapor transmission and condensation.

SECTION 133. Comm 63.1050 (6) is amended to read:

Comm 63.1050 (6) EXTERIOR LIGHTING CONTROLS. Except in lighting in parking garages, tunnels, and large covered areas that require illumination during daylight hours, exterior lighting shall be controlled by a directional photocell or astronomical time switch that automatically turns off the exterior lighting when daylight is available. Time switches shall be ~~equipped with back-up provisions to keep~~ capable of maintaining the correct time during a power outage of lasting up to 10 hours or more.

SECTION 134. Comm 64.0100 is amended to read:

Comm 64.0100 Changes, additions or omission to the International Mechanical Code® (IMC). Changes, additions or ~~omission~~ omissions to the ~~international mechanical code~~

IMC are specified in this subchapter and are rules of the department and are not requirements of the IMC.

Note: ~~This code~~ The sections in this subchapter ~~is~~ are generally numbered to correspond ~~to~~ with the section numbering ~~used within~~ in the ~~model code~~ IMC; i.e. e.g., s. Comm 64.0102 ~~refers~~ corresponds to ~~section~~ IMC section 102.

SECTION 135. Comm 64.0101 (1) (title) is repealed.

SECTION 136. Comm 64.0101 (1) (a) is renumbered Comm 64.0101.

SECTION 137. Comm 64.0101 (1) (b) and 64.0101 (2) are renumbered Comm 64.0102 (1) and 64.0103 and Comm 64.0103, as renumbered, is amended to read:

Comm 64.0103 Scope. The requirements ~~of~~ in IMC sections 103 to ~~107, 108.1 to 108.6 and 109~~ are not included as part of this chapter.

SECTION 138. Comm 64.0102 (intro.), (1), and (2) are renumbered Comm 64.0102 (2) (intro.), (a), and (b).

SECTION 139. Comm 64.0300 is renumbered Comm 64.0603 (2) and amended to read:

Comm 64.0603 (2) SPECIFIC CRITERIA FOR OPERATING ROOMS AND AUTOPSY ROOMS. This is a department rule in addition to the requirements in IMC ~~chapter 3~~ section 603.15: In operating rooms of hospitals and ambulatory surgery centers rooms and autopsy rooms, the bottoms of ventilation supply and return openings shall be at least 3 inches above the floor.

SECTION 140. Comm 64.0301 (1) to (4) are renumbered Comm 64.0301 (2) to (5) and Comm 64.0301 (3) (a), as renumbered, is amended to read

Comm 64.0301 (3) (a) *General.* All appliances regulated by this chapter shall be listed and labeled as specified in this chapter, unless approved by the department in accordance with par. (b) or the product approval criteria in s. Comm ~~61.60~~ 61.50.

SECTION 141. Comm 64.0301 (1) is created to read:

Comm 64.0301 (1) SCOPE. Substitute the following wording for the requirements in IMC section 301.1: This chapter shall govern the approval and installation of all equipment and appliances that comprise parts of the building mechanical systems regulated by this code in accordance with Comm 64 subch. 1.

SECTION 141m. Comm 64.0401 (4) Note (2) is amended to read:

Comm 64.0401 (4) Note (2): See NFPA standard 45, Fire Protection for Laboratories Using Chemicals, adopted under ~~ch. Comm 10 s. Comm 62.3500~~, for chemical fume hood exhaust location. Health care and related facilities may have additional requirements.

SECTION 142. Comm Table 64.0403 is amended to read:

TABLE 64.0403
REQUIRED MINIMUM INSIDE TEMPERATURE AND OUTDOOR
VENTILATION AIR
(Partial Table)

OCCUPANCY CLASSIFICATION ⁱ	VENTILATION REQUIREMENTS – BASIS OF CAPACITY				
	Minimum Inside Temperature (degrees F)	Estimated Maximum Occupant Load (persons per 1,000 sq. ft.) ^a	Natural Ventilation Allowed	Exhaust ^e (cfm/net sq. ft. floor area)	Air Change Rate ^k (minimum air change per hour with A/C)
<u>Specialty Shops</u>					
<u>Car washes, enclosed:</u>					
<u>Self-serve fully automated</u>	<u>NMR</u>	=	<u>yes</u>	=	=
<u>All other types^p</u>	<u>60</u>	=	<u>no</u>	<u>0.5</u>	=
<u>Utility and public spaces</u>					
<u>Elevators Elevator cars^g</u>	NMR	–	no	1.00	–

^p For a facility having a portion that is automated with a conveyor system, the net floor area may be calculated as including only the floor area between the termination of the conveyor system and the vehicle-exit door.

SECTION 143. Comm 64.0507 and (title) are renumbered Comm 64.0507 (3) and (title) and Comm 64.0507 (3), as renumbered, is amended to read:

Comm 64.0507 (3) CAPACITY OF HOODS. Substitute the following wording for the introductory paragraph in IMC section 507.13: A kitchen exhaust hood shall be provided with a capture velocity to capture the grease vapors, smoke, heat, or steam effectively and may be designed either through engineering analysis, or based on IMC section 507.13 and the requirements in IMC sections 507.13.1 ~~through to 507.13.4~~ where:

SECTION 144. Comm 64.0507 (title), (1), and (2) are created to read:

Comm 64.0507 (title) Commercial kitchen hoods. (1) EXCEPTIONS. (a) Substitute the following wording for the exception in IMC section 507.1: Factory-built commercial exhaust hoods which are tested in accordance with UL 710, listed, labeled and installed in accordance with IMC section 304.1 shall not be required to comply with IMC sections 507.4, 507.7, 507.11, 507.12, 507.13, 507.14, and 507.16.

(b) These are additional department exceptions to the requirements in IMC section 507.1:

1. Factory-built commercial cooking recirculating systems which are tested in accordance with UL 197, listed, labeled and installed in accordance with IMC section 304.1 shall not be required to comply with IMC sections 507.4, 507.5, 507.7, 507.12, 507.13, 507.14 and 507.15.

2. Net exhaust volumes for hoods shall be permitted to be reduced during no-load cooking conditions, where engineered or listed multi-speed or variable-speed controls automatically operate the exhaust system to maintain capture and removal of cooking effluents as required by IMC section 507.

(2) TYPE I AND TYPE II HOODS. Substitute the following wording for the requirements in IMC sections 507.2 to 507.2.3:

(a) A Type I or Type II hood shall be installed at or above all commercial food cooking appliances in accordance with pars. (b) and (c). Where any cooking appliance under a single hood requires a Type I hood, a Type I hood shall be installed. Where a Type II hood is required, a Type I or Type II hood shall be installed.

(b) Type I hoods shall be installed where cooking appliances produce grease vapors or smoke, such as occurs with griddles, fryers, broilers, ovens, ranges and wok ranges.

(c) Type II hoods shall be installed where cooking or dishwashing appliances produce heat or steam and do not produce grease vapors or smoke, such as steamers, kettles, pasta cookers and dishwashing machines.

(d) Exhaust hoods are not required for the following appliances:

1. Under-counter-type commercial dishwashing machines.
2. Dishwashers and potwashers that are provided with heat and water vapor exhaust systems which are supplied by the appliance manufacturer and are installed in accordance with the manufacturer's instructions.

(e) Domestic cooking appliances utilized for commercial purposes shall be provided with Type I or Type II hoods as required for the type of appliances and processes in accordance with pars. (a) to (c).

SECTION 145. Comm 64.0513 is created to read:

Comm 64.0513 Smoke control systems. Substitute the following wording for the requirements in IMC section 513.3: In addition to the inspection and test requirements which buildings, structures and parts thereof are required to undergo, smoke control systems subject to the provisions of section 909 of the *International Building Code* shall undergo inspections and tests sufficient to verify the proper commissioning of the smoke control design in its final

installed condition. The design submission accompanying the construction documents shall clearly detail procedures and methods to be used and the items subject to such inspections and tests. Such commissioning shall be in accordance with generally accepted engineering practice and, where possible, based on published standards for the particular testing involved.

SECTION 146. Comm 64.0603 is renumbered Comm 64.0603 (1).

SECTION 147. Comm 64.0603 (1) (title) is created to read:

Comm 64.0603 (1) (title) DHFS LICENSED FACILITIES.

SECTION 148. Comm 64.0607 is created to read:

Comm 64.0607 Ducts and air-transfer openings. (1) Substitute the following wording for exception 3 in IMC section 607.5.5.1: Ducts are used as part of an approved smoke control system designed and installed in accordance with IBC section 909, and where the fire damper will interfere with the operation of the smoke control system.

(2) These are additional department exceptions to the requirements in IMC section 607.5.5.1:

(a) In Group B occupancies, equipped throughout with an automatic sprinkler system in accordance with IBC section 903.3.1.1, smoke dampers are not required at penetrations of shafts where bathroom and toilet room exhaust openings have steel exhaust subducts with a wall thickness of at least 0.019 inches that extend at least 22 inches vertically and the exhaust fan at the upper terminus, powered continuously in accordance with the provisions of IBC section 909.11, maintains airflow upward to the outside.

(b) Smoke dampers are not required at penetration of exhaust or supply shafts in parking garages that are separated from other building shafts by not less than 2-hour fire-resistance-rated construction.

(c) Smoke dampers are not required in ducts that are used as part of an approved mechanical smoke control system, designed and installed in accordance with IBC section 909, and the smoke dampers will interfere with the operation of the smoke control system.

(d) Smoke dampers are not required in ducts that are used in the exhaust portion of systems which are designed and installed in accordance with NFPA 45.

(3) THROUGH PENETRATIONS. Substitute the following wording for the requirements in IMC section 607.6.1: (a) Except as provided in par. (b), in occupancies other than Groups I-2 and I-3, a duct and air transfer opening system constructed of approved materials in accordance with this code that penetrates a fire-resistance-rated floor/ceiling assembly that connects not more than two stories is permitted without shaft enclosure protection provided a fire damper is installed at the floor line.

(b) In Group R occupancies, a duct may penetrate three floors or less without a fire damper at each floor provided it meets all of the following requirements:

1. The duct shall be contained and located within the cavity of a wall and shall be constructed of steel not less than 0.019 inch (0.48 mm) (26 gauge) in thickness.

2. The duct shall open into only one dwelling unit or sleeping unit and the duct system shall be continuous from the unit to the exterior of the building.

3. The duct shall not exceed 4-inch nominal diameter and the total area of such ducts shall not exceed 100 square inches for any 100 square feet of floor area.

4. The annular space around the duct is protected with materials that prevent the passage of flame and hot gases sufficient to ignite cotton waste where subjected to ASTM E 119 time temperature conditions under a minimum positive pressure differential of 0.01 inch of water at the location of the penetration for the time period equivalent to the fire-resistive rating of the construction penetrated.

5. Grille openings located in a ceiling of a fire-resistance-rated floor/ceiling or roof/ceiling assembly shall be protected with a ceiling radiation damper in accordance with IMC section 607.6.2.

(4) MEMBRANE PENETRATIONS. Substitute the following wording for the requirements in IMC section 607.6.2: (a). *Ceiling membranes.* Duct systems constructed of approved materials in accordance with this code that penetrate the ceiling membrane of a fire-resistance-rated floor/ceiling or roof/ceiling assembly shall be protected with one of the following:

1. A fire-resistance-rated shaft enclosure in accordance with IBC sections 707 and 712.4.

2. An approved ceiling radiation damper installed at the ceiling line where the duct system penetrates the ceiling of a fire-resistance-rated floor/ceiling or roof/ceiling assembly.

3. An approved ceiling radiation damper installed at the ceiling line where a diffuser with no duct attached penetrates the ceiling of a fire-resistance-rated floor/ceiling or roof/ceiling assembly.

(b) *Ceiling radiation dampers.* Ceiling radiation dampers utilized under par. (a) shall be tested in accordance with UL 555C and installed in accordance with the manufacturer's installation instructions and listing. Ceiling radiation dampers are not required where either of the following apply:

1. ASTM E 119 fire tests have shown that ceiling radiation dampers are not necessary in order to maintain the fire-resistance rating of the assembly.

2. Exhaust duct penetrations are protected in accordance with IBC section 711.4.2 and the exhaust ducts are located within the cavity of a wall, and do not pass through another dwelling unit or tenant space.

SECTION 149. Comm 64.0801 (2) is amended to read:

Comm 64.0801 (2) ~~These are~~ This is a department ~~rules~~ rule in addition to the requirements in IMC section 801.2: ~~Permanently Portable or permanently installed, and portable fuel-fired,~~ unvented ~~fuel-fired space room~~ heaters are prohibited.

Note: See ~~ch s. Comm 65, subch. H, Part 6~~ 65.0620 for the prohibition of ~~portable, gas-fired,~~ unvented ~~gas-fired space room~~ heaters.

SECTION 150. Comm 64.1500 (2) and Note are repealed and recreated to read:

Comm 64.1500 (2) This is a department rule in addition to the requirements in IMC chapter 15: The following standards are hereby incorporated by reference into this code:

(a) AIA Guidelines for Design and Construction of Hospital and Health Care Facilities, 1996-97.

(b) UL 197-93, Commercial Electric Cooking Appliances – With Revisions Through January 2000..

Note: NFPA standards may be purchased from the National Fire Protection Association, One Batterymarch Park, P.O. Box 9101, Quincy, MA 02269-9101.

AIA guidelines may be purchased from the American Institute of Architects, Order Department, 9 Jay Gould Court, P.O. Box 753, Waldorf, MD 20601.

UL standards may be purchased from Underwriters Laboratories, Inc., 333 Pfingsten Road, Northbrook, IL 60062-2096.

Copies of the standards adopted under this section are on file in the offices of the department, the secretary of state, and the revisor of statutes.

SECTION 151. Comm 65.0101 is amended to read:

Comm 65.0101 Administration. Except for IFGC ~~sections section~~ section 102.8 ~~and 108.7~~, the requirements in IFGC chapter 1 are not included as part of this chapter.

SECTION 152. Comm 65.0202 (2) is amended to read:

Comm 65.0202 (2) This is a department definition in addition to the definitions in IFGC section 202: "DHFS" means the department of health and family services.

SECTION 153. Comm 65.0301 is repealed and recreated to read:

Comm 65.0301 General Regulations. (1) SCOPE. Substitute the following wording for the requirements in IFGC section 301.1: This chapter shall govern the approval and installation of all equipment and appliances that comprise parts of the installations regulated by this code in accordance with ch. Comm 65 subch. I.

(2) LISTED AND LABELED. Substitute the following wording for the requirements in IFGC section 301.3: The requirements as specified in s. Comm 64.0301 (3) shall apply.

SECTION 154. Comm 65.0305 (1) is amended to read:

Comm 65.0305 (1) ADDITIONAL REQUIREMENTS. The requirements in IMC sections 304.2, 304.8, 304.9, 304.10, and 305₁ as adopted in s. Comm ~~64.0304~~ 61.05, shall apply to gas appliance installations.

SECTION 155. Comm 65.0620 is repealed and recreated to read:

Comm 65.0620 Unvented room heaters. Substitute the following wording for the requirements in IFGC section 620: Portable, gas-fired, unvented room heaters are prohibited.

Note: See s. Comm 64.0801 (2) for prohibition of unvented room heaters that are fired with other fuels.

SECTION 156. Comm 65.0700 is amended to read:

Comm 65.0700 Referenced standards. This is a department rule in addition to the requirements in IFGC chapter 7: The following standard is hereby incorporated by referenced into this code: ANSI Z223.1/NFPA 54-~~1999~~ 2002, National Fuel Gas Code.

(END)

EFFECTIVE DATE

Pursuant to s. 227.22 (2) (intro.), Stats., these rules shall take effect on the first day of the month following publication in the *Wisconsin Administrative Register*.